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## EDUCATIONAL NEWS AND EDITORIAL COMMENT

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### THE REVIVED INTEREST IN UNESCO

#### *Conference of the United States National Commission for UNESCO*

The Fourth National Conference of the United States National Commission for UNESCO held at the University of Minnesota, September 15-17, 1953, was characterized by an unusual spirit of encouragement. I had gone to Minneapolis somewhat reluctantly, expecting to be a part of a pessimistic gathering. But gloom did not materialize. Cordial greetings from President Eisenhower and from Secretary of State Dulles brought an enthusiastic response in the opening general session. The President made his administration's position clear in these words:

I cannot urge too strongly or too often the dedication of the energies, resources and imagination of peoples throughout the world to the waging of a total war upon the

brute forces of ignorance and poverty. . . . The United Nations and its family of related international organizations, of which UNESCO is an essential member, furnish all these peoples with a reason for hope and a means of action in this struggle.

Walter Bedell Smith, undersecretary of state, made the address of the first evening, praising the role that UNESCO could play in developing closer understanding among the peoples of the world and adding, "Since our concern is not for the past but for the future, there is every incentive to increase the scope and effectiveness of UNESCO's activities." The final general session featured a brief address by Luther H. Evans, the new director general of UNESCO. He declared that UNESCO "has turned the corner," that the peak of attacks and criticisms leveled against UNESCO in recent years "has passed in this country and elsewhere in the world." Thus the conference opened and closed

with messages that evoked a new strength for this international organization.

The press noted and supported the general encouragement. On September 18 the Minneapolis *Tribune* quoted Walter H. C. Laves, chairman of the U.S. National Commission for UNESCO, as saying that the 1953 conference "reaffirmed the American will to participate in UNESCO." An editorial the day before had said, "The words of Bedell Smith are heartening words which mean an important segment of American foreign policy established during a Democratic administration is going to be continued under a Republican regime."

#### *Answering criticisms against UNESCO*

The Salomon report played an important part in building this spirit of optimism. This eighteen-page document, entitled *An Appraisal of the United Nations Educational, Scientific and Cultural Organization*, answers seven specific criticisms of UNESCO which has circulated in the United States, and answers them in such a way as to satisfy the President and the Secretary of State that UNESCO is working effectively for peace and advancement. The special delegation making the report was appointed by President Eisenhower and went to Paris in July, 1953, to explore the UNESCO program in light of current criticisms and to consult with the representatives of other governments, the individual members of UNESCO's Executive Board, and the interna-

tional Secretariat. The delegation was headed by Irving Salomon, of California, an industrialist interested in the nation's philanthropic and educational affairs. The other members were John Perkins, president of the University of Delaware, and Mrs. F. P. Heffelfinger, Republican national committeewoman from Minnesota, and a student of postwar international affairs.

The report reached the State Department early in September, and its contents were still unknown to many of the delegates meeting in Minneapolis on September 15. When we learned during the early part of the conference of the strong answers to the critics of UNESCO, we again felt our encouragement grow. The following are a few of the answers.

1. In regard to the charge that UNESCO is under the influence of the Communists, the delegation said that, of the ninety Americans who were on the staff of UNESCO, all but three completed questionnaires sent them and returned them to the United States government. The three individuals were under investigation, and one of them had been dropped from the UNESCO organization. None of these three were in policy-making positions.

2 and 3. In regard to the allegations that UNESCO advocates world government and that UNESCO seeks to undermine the loyalty of Americans, the delegation found no evidence that UNESCO had deviated from the policies laid down by the member-

governments, including the United States Government. In fact, the delegates said:

On the contrary, UNESCO's policies, program, and activities do not in any degree infringe on the sovereignty, independence, or integrity of the United States. . . .

4. To the criticism that UNESCO seeks to indoctrinate American school children, the Salomon report answered:

There was no evidence that came to the attention of this delegation that UNESCO under its own aegis has produced materials or textbooks for use in American schools which seek to indoctrinate our children with ideas contrary to American ideals and traditions.

5. The delegation said that it is true that the United States contributes one-third of UNESCO's budget. However, they said it was not true that we receive little in return. The report states:

. . . there is an immeasurable gain that accrues to us through UNESCO in strengthening the community of free nations upon which our own well-being, security, and even prosperity so largely depend.

6. In regard to the criticism that UNESCO is atheistic or antireligious, the delegation said:

Nothing found in the official actions of the Organization, including publications and statements, substantiated this charge. That there may be such views among persons who attend UNESCO meetings would not be surprising, in view of the universal character of UNESCO's membership. But that UNESCO should officially have committed itself to or promoted such doctrines is not established in fact.

7. In response to the allegations that UNESCO has failed to fulfil the expectations of those who brought it into being, the report gives an impressive list of "some of the UNESCO's more interesting specific activities and cites a dozen important direct benefits that accrue to the United States."

The delegation gave UNESCO a clean bill of health on all points. In submitting the report, Mr. Salomon said: ". . . may I assure you that our delegation was completely objective and not biased in any direction. Had the facts been otherwise, we would have discussed them with equal frankness." Both Secretary Dulles and Undersecretary Smith publicly evaluated the Salomon report as a document which should do much to disperse unjustified criticism leveled against UNESCO and to help reassure Americans of the organization's real mission.

#### *Available materials about UNESCO*

With this new optimism and these evidences of renewed official support, we shall certainly be seeing new public interest in UNESCO. We can expect renewed vigor on the part of our schools in teaching the purposes and work of UNESCO. And for this, materials are necessary. How can the schools get usable materials on UNESCO?

The Salomon report is Department of State Publication 5209, and it is available from the Division of Publications of that Department, Washington 25, D.C. In addition to

answering critics, this report contains accounts and descriptions of many of UNESCO's activities.

A helpful pamphlet, also available from the Division of Publications of the Department of State, is the August, 1953, issue of *UNESCO Facts*. The sixteen illustrated pages supply answers to many questions that might be asked about UNESCO, its purposes and activities. Information can be located easily from an index of questions on the final page, showing that this publication discusses such questions as, "What is UNESCO?" "What other countries belong to UNESCO?" and "How is UNESCO managed?"

A quarterly bulletin, *Fundamental and Adult Education*, is published by UNESCO and is available by subscription (\$1.00 a year) through distributors in most of the member-nations. The distributor in the United States is International Documents Service, Columbia University Press, New York 27. Each issue of the bulletin carries four or five articles describing specific projects in fundamental and adult education somewhere in the world. For example, the October, 1953, issue supplies a summary of experiments in rural reconstruction in Egypt, a review of current activity in international voluntary work camps, an account of fundamental education in the Cameroons, a report of an experiment in South Wales using adult classes in social research, and a discussion of the human aspect of fundamental education in Africa. In addition

to these articles, an editorial, a biography of a seventeenth-century European humanitarian, notes on the study of oceanic linguistics, a section called "Notes and Records" (presenting brief items of interest about educational activities scattered throughout the world), and a few pages of UNESCO news are included.

The *UNESCO Story* is a very readable explanation of the organization from the United States point of view. It was published in 1950 by the U.S. National Commission for UNESCO and is available from the UNESCO Relations Staff, Department of State, Washington 25, D.C. Since the 112 pages of this book are well illustrated and attractively printed, it should be particularly useful on a classroom reference shelf or in a school library. The contents include a description of UNESCO and its goals, of UNESCO in the United States, and an explanation of what people can do and are doing to achieve the goals of UNESCO. For example, a twenty-page section on "Exchange of Persons" offers specific information on many avenues of educational exchange, such as Fulbright-scholarship opportunities, teacher exchanges, and college travel plans.

Some of the most valuable publications of UNESCO appear in the series called *Educational Studies and Documents*. The fifth report, which is sure to attract widespread attention, is William S. Gray's *Preliminary Survey on Methods of Teaching Reading and Writing*, Parts I and II, issued July, 1953. Part I of this report is en-



titled *Survey of Theories and Practices; Part II, Summary of Suggested Practices*. These are available at forty cents each from UNESCO, 19 Avenue Kléber, Paris, France, or from International Documents Service, Columbia University Press, New York 27.

Dr. Gray, a member of the Department of Education, University of Chicago, is conducting a three-year study for UNESCO which is to be the foundation for the development of better literacy programs. The aims for the first stage of his study are stated as follows in the Preface to Part I of the report:

1. To identify, analyze, and describe the various methods now used in teaching both children and adults to read and write.

2. To secure data concerning the effectiveness of these methods, wherever . . . available.

3. To summarize the findings of the survey, to consider their implications for the improvement of the teaching of reading and writing, with major emphasis upon the adult level, and to point out problems needing further study and indicate desirable solutions to these.

In order to bring together a wide range of analyses of current teaching methods, Dr. Gray enlisted the cooperation of specialists in reading and writing in many parts of the world. Analyses were secured from the following areas: Arabic areas of Africa and the Near East; France; India; Madagascar; Mexico and Central and South America; and Southern, Western, Central, and Eastern Africa.

To supplement these analyses, a detailed study was made of all avail-

able reports, bulletins, manuals, or guides for teachers in order to identify current practices and basic principles underlying the teaching of reading and writing. Many other inquiries were made, numerous conferences were held, and a limited number of field studies were made to secure additional information on specific techniques and on the nature of the problems faced in various countries.

The findings reported in this preliminary survey are revealing and full of meaning to the people of the world. The following information is quoted as an example:

A review of the literacy status of both children and adults today . . . showed that at least 50 per cent of the people of the world over ten years of age are totally illiterate and that an additional 15 per cent are partially illiterate. Furthermore, almost one-half of the children of the world do not have an opportunity to secure even a primary school education.

Dr. Gray discusses the study fully in a paper on "The Teaching of Reading: The Current UNESCO Study," included in the Proceedings of the 1953 Annual Conference on Reading, which has recently appeared under the title *Corrective Reading in Classroom and Clinic* and which is described in a later section of these news notes.

#### *Accomplishments of UNESCO*

Frequently one hears the question, "Just what kind of thing does UNESCO do?" Obviously UNESCO holds conferences, publishes materials, and conducts studies such as the one on the teaching of reading and writing

just described. But what are other phases of the international program? The following ten examples of specific activities are selected from a description of the program for the period October, 1952, to March, 1953, as summarized in the Salomon report:

1. UNESCO initiated a much-needed bibliography of multilingual, scientific, and technical dictionaries.

2. UNESCO organized a series of regional conferences designed to promote free compulsory primary education.

3. UNESCO sent experts or missions, at the individual country's request, to eight countries to help organize free compulsory education systems.

4. UNESCO supported 31 elementary schools for Arab refugee children from Palestine.

5. UNESCO assisted the government of Pakistan in developing a satisfactory Braille system for Urdu, and is working out uniformity in Braille for music.

6. UNESCO organized numerous lecture tours by scientists in many fields, and in many countries, primarily the underdeveloped ones.

7. UNESCO sponsored or co-sponsored meetings of the International Social Science Council, International Economic Association, International Statistical Institute, International Council for Philosophy and Humanistic Studies, International Theater Institute, International Music Council, International Union of Architects, International Council of Museums, and Commission on the Care of Paintings.

8. UNESCO completed a six months' mission, in co-operation with the United Nations Korean Reconstruction Agency, which surveyed existing educational facilities and drew up a long-term plan for the reconstruction of education in Korea.

9. UNESCO drafted an International

Convention for the Preservation of Cultural Property in the Event of Armed Conflict, sponsoring regulations on archeological excavations by means of an international center for preserving and restoring cultural property.

10. UNESCO completed a study of the impact upon children of the press, film, and radio.

The foregoing activities are only a few of the UNESCO projects. Perhaps the scope of the program can be suggested by the following figures, which refer to the projects in the five major divisions voted for 1953-54 at the seventh session of the General Conference held in November, 1952:

In the educational fields there were 54 projects with budget appropriations ranging from \$882 to \$320,910.

In the natural sciences, 24 projects with appropriations from \$321 to \$430,129.

In the social sciences, 30 projects with appropriations from no cost at all to \$106,031.

In the cultural activities, 42 projects with appropriations from no cost at all to \$380,987.

In mass communications, 29 projects with appropriations from no cost at all to \$62,502.

#### *Fundamental education and the community school*

A group of UNESCO projects which are particularly interesting to educators are those in fundamental education. UNESCO established the second regional fundamental education center at Sirs el Taiyana, Egypt, for the Arab countries. The first was established about three years ago at Pátzcuaro, Mexico. These centers are

for the purpose of teaching teachers to carry fundamental education to their own people. "Fundamental education" a name probably coined by UNESCO, refers to a co-ordinated attack on mass illiteracy, ignorance, ill health, dietary deficiencies, and lack of economic development. UNESCO is joined by other United Nations specialized agencies in this effort to assist over half the world's population by educating them in health, agriculture, and livestock practices; in housing and handicraft techniques; in community recreation, in local self-government; and in providing at least a minimum of formal education for children and adults.

The conception of fundamental education held and advocated by UNESCO is similar to the conception of the *community school* held and advocated by many American educators. A recent publication describing this school is the Fifty-second Yearbook, of the National Society for the Study of Education, Part II, entitled *The Community School* (distributed by the University of Chicago Press). The first chapter contains the following explanation of the term:

Americans are becoming more and more interested in the *community school*. This educational term, long used to identify various kinds of schools, is now emerging with a rather definite meaning. The *community school* to many of us—educators and laymen—is a good school, an effective school, a school that combines many desirable features of educational movements of the past and the present into a concept of education

that is sound and permanent—not a fad or a passing fancy. . . .

The *community school* of today secures its impetus from man's new understanding of the power of education. Problems of people and of communities are being solved from day to day by appropriate use of community resources. The educative process is the force which relates the resources to the needs. The result from this unique relationship is the solution of problems.

Progress by UNESCO and by American schools in using the educative process in this way will do much to improve living conditions and standards in local communities and to give individuals appropriate skills, values, and concepts that will enable them to function more effectively in all their independent and co-operative undertakings. These results should have lasting influence in the nation and in the world.

MAURICE F. SEAY

#### WE ARE IN THE BIG TEN

THE EDITORIAL STAFF of the *School Review* has studied with considerable interest an article on "Usefulness of Educational Periodicals for Research" by William D. Wilkins and Lucy Gross, which appeared in *School and Society* for January 9, 1954. The article points out that there are more than 750 educational periodicals. It presents in tables of rank order those periodicals that were most frequently cited in the *Journal of Educational Research*, the *Review of Educational Research*, and *Education Digest* for the period 1948-52, inclusive. The *School*

*Review* ranks among the first ten, or better, in each of the five tables included in the article.

We noted, for example, that the *School Review* and its companion periodical, the *Elementary School Journal*, tied for eighth rank among the publications most frequently cited in the *Education Digest*. The periodicals at the top of this list, namely, *School and Society*, *Nation's Schools*, and *School Executive*, are independent of each other and do not aim to serve any particular level of the educational system. In contrast, the *School Review* and the *Elementary School Journal* are so closely affiliated as to be considered substantially one enterprise by their sponsor—the Department of Education of the University of Chicago. Moreover, these journals deal primarily with definite levels of education. The *School Review*, which concentrates on secondary education, sometimes transfers to the *Elementary School Journal* articles received that seem to be more appropriate for the level served by the latter, and the reverse also occurs.

In view of these facts, we could not resist the temptation to combine the data for the *School Review* and the *Elementary School Journal* in the tables prepared by Wilkins and Gross. When this is done, the combined enterprise would rank first in articles cited in the *Education Digest*. It would rank second to the *Journal of Educational Research* in periodicals cited in the *Review of Educational Research* and also in total citations in all the references listed. It would rank third, fol-

lowing below the *Journal of Educational Research* and the *Journal of Educational Psychology* in frequency of citations in the former publication.

The major criteria employed by the editorial staff of the *School Review* in selecting articles are the potential usefulness of the material to the profession and the extent to which the views or conclusions expressed are supported by objective data. We therefore note with some satisfaction that authors whose material is published elsewhere have found our selections significant and worthy of citation. We are not trying to compete in a popularity contest with other periodicals, but we often wish that scholarly articles could be so written as to have a wider appeal than they usually do. Although we cannot hope to achieve wide popular appeal for the kind of material we publish, it is gratifying to find that it reaches many of those to whom it is primarily directed.

#### SCHOLARSHIP AID IN HIGH SCHOOL

MORE AND MORE individual high schools and city school systems are developing programs of building up scholarship funds, publicizing scholarship opportunities, and encouraging those qualified to continue their education," says Olga S. Hamman in an article, "Who Should We Educate?" in the *CTA Journal* (official publication of the California Teachers Association) for November, 1953.

California has a new Subcommittee on Scholarship Awards and also a Subcommittee on Education of the Gifted

Student. The first subcommittee will investigate such matters as the organization of a state scholarship board, criteria for awards, the need for surveys, methods of financing scholarships, and correlation with federal scholarships, veterans' benefits, and other aid programs. The second subcommittee will study measures undertaken in California schools to meet the needs of gifted students, including their opportunities for higher education. Mrs. Hamman writes:

In appointing these committees and in making these surveys, the State Department of Education is reflecting a widespread and growing concern about the waste of talent resulting from the underdevelopment of our human resources. The problem of conserving these resources of talent and ability is threefold. It includes, first, the financing of advanced education; second, the dissemination of information to the students, their parents, their counselors, and their teachers about the possibilities of financial assistance; and third, and most important of all, the awakening and stimulation of the desire for college on the part of capable students and their families. . . .

[San Diego High School has] six trust funds, ranging in capital value from \$1,250 to \$99,000, and several other funds which are made up of periodic gifts contributed by groups or individuals, including the Senior Class, the PTA, school clubs, the Music Department, and the Girls' League. These funds are administered by the Scholarship Board of Control of the San Diego High School, composed of eight members of the faculty and the principal, who is ex officio chairman. . . .

In June, 1953, twenty-one Seniors received scholarships from the various San Diego High School funds, with a total value of \$4,100. Most of them were \$50 awards, one was for \$240, and two . . . awards were for \$400 a year for four years.

In many schools the only scholarship aid available to Seniors comes from outside sources. Perhaps the public secondary schools have been negligent in not seeking to establish funds of their own, as has been done so successfully in San Diego.

No one questions the importance of efforts to help worthy, capable students get a college education, and it should be considered equally important to see that capable high-school students are enabled to continue their education. In the last ten or fifteen years a number of studies of the "holding power" of high schools have shown that lack of finances accounts, at least in part, for a substantial portion of the drop-outs. William H. McCreary and Donald E. Kitch, of the California State Department of Education, report in *Now Hear Youth* (Bulletin of the California State Department of Education, Vol. XXII, No. 9 [October, 1953]) that financial need accounted for 13 per cent of the drop-outs in recent studies in California schools. Perhaps some of these students could have remained in school had some scholarship aid been available.

#### RECENTLY PUBLISHED YEARBOOKS

*Education for citizenship* The Thirty-second Yearbook of the American Association of School Administrators was published in February under the title, *Educating for American Citizenship*. Prepared by a nine-member commission of prominent educators, this



volume examines existing practices in citizenship education in light of new trends in the social and economic foundations of American life and points out the need of better methods of realizing the traditional ideals of American citizenship.

Thus, the setting for effective citizenship education is viewed as the shared responsibility of school and community; and instruction in citizenship is defined as the intelligent adaptation of learning experiences to individual differences among children and youth, a sympathetic guidance toward acceptable attitudes and ideals, the development of an understanding of civic problems, and an introduction to effective participation in civic affairs. Helpful suggestions are provided for teachers seeking clarification of the objectives of citizenship education and for those who face the necessity of evaluating the results of their efforts to prepare students for their responsibilities as citizens.

This yearbook may be procured through the office of the American Association of School Administrators (1201 Sixteenth Street, N.W., Washington 6, D.C.) for \$5.00.

*Two parts* The Fifty-third Year-  
*of NSSE* book of the National  
*yearbook* Society for the Study of  
Education includes two  
volumes: Part I, *Citizen Co-operation  
for Better Public Schools*; Part II, *Mass  
Media and Education*. The publica-  
tions of the National Society are pre-  
pared by representative scholars and

practitioners identified with the fields of study in which the problems of the different yearbooks are observed.

The individuals selected as the committee for the preparation of Part I of the present yearbook are unanimous in the belief that citizen co-operation is an essential factor in the development and administration of a satisfactory program of public education. The book is divided into three sections. The first section explains how certain social and economic influences have made citizen co-operation increasingly important in the design of public education through the years; the second section presents examples of various kinds of co-operative effort in which representatives of school and community have worked for the improvement of the school program; the last section provides suggestions for making co-operative procedures effective in various situations. This volume also provides valuable guidance for associations, clubs, and civic organizations interested in community-improvement programs that may help develop better public schools.

*Mass Media and Education* deals with the social and psychological effects of mass communications of various kinds and with the procedures and the results of use of the different mass media for cultural and educational purposes. Consideration is given particularly to the influence of mass-media messages presented to children of school age, whether these messages are received in connection with school activities or in some phase of out-of-

school life. This volume should prove to be a valuable guide to parents and teachers in their planning of learning experiences for children and youth. It will also serve the various cultural and vocational interests of adult-education groups.

The two volumes comprising the current yearbook of the National Society are available on order to the University of Chicago Press at \$4.00 for each volume in cloth binding, or \$3.25 in paper covers.

*The learning environment* *Creating a Good Environment for Learning* is the new yearbook of the Association for Supervision and Curriculum Development. It is devoted to a discussion of the processes by which teachers, with the help of the community, can secure and maintain for learners of school age an environment in which they will have the best chance to learn to use and enjoy their membership in a free society. The learning environment emphasized in the volume is characterized by the yearbook committee as "the atmosphere one senses as he approaches a school or looks in at the open door of a classroom." Both people and physical resources are factors in the creation of a learning environment.

The first part of the yearbook includes six case studies of the efforts of six teachers to create good learning environments. The second half of the book presents an analysis of techniques for improving learning environments. The final section of the

book is a bibliography which lists audio-visual materials, books, and pamphlets dealing with educational programs from the primary-grade to senior high school level.

The yearbook may be purchased through the office of the National Education Association (1201 Sixteenth Street, N.W., Washington 6, D.C.) for \$3.75.

*Court decisions on school law* School superintendents and school-board members have frequent use for *The Yearbook of School Law*. The 1954 issue is the fifth in the new series, of which Professor Lee O. Garber, of the University of Pennsylvania, is the author and publisher. This series is the successor to an earlier publication bearing the same title and issued under the editorship of M. M. Chambers. These volumes have regularly reviewed the significant court decisions of the preceding calendar year, the materials being assembled under classified headings descriptive of the issues involved in the litigation reviewed. The present volume employs eight chapters for the report of the classified cases on such familiar subjects as school districts, school property, teachers, and pupils. An additional chapter includes a collection of unusual cases decided during the past year.

The book may be purchased from the author (School of Education, University of Pennsylvania, Philadelphia 4, Pennsylvania) at \$2.75 a copy.

*Developing skills in social studies* The 1954 Yearbook of the National Council for the Social Studies, which is the twenty-fourth in the Council's yearbook series, is designed to meet one of the common needs of teachers of the social studies at all levels of education—the need for specific guidance in the development of social-studies skills. Under the title, *Skills in Social Studies*, this yearbook undertakes to present a discussion of the major skills needed in the social-studies program and, at the same time, to explain the process of developing any given skill at each level of the student's progress through the elementary- and secondary-school programs.

The text is organized around a selected list of social skills readily identified as commonly recognized attributes of democratic citizenship. Among these are the familiar educational objectives of skill in problem-solving, organizing and evaluating information, reading, listening, speaking, writing, interpreting maps and graphs, and participating in group undertakings. It is the consensus of the yearbook committee that the full development of such skills as are discussed in this volume is most essential in our democratic society.

This yearbook may be purchased through the office of the National Council for the Social Studies (1201 Sixteenth Street, N.W., Washington 6, D.C.). The price is \$3.50 in cloth binding, or \$3.00 in paper covers.

#### IN PAPER COVERS

*Teaching of controversial issues* A new booklet entitled *Censorship and Controversy* outlines and discusses principles for dealing with these problems in schools. It is the report of a committee of the National Council of Teachers of English, but it will be useful to administrators and to teachers in any field where controversial issues can arise, including the social studies and science. Major sections of the report deal with (1) the co-operative responsibility of teachers, students, administrators, parents, and community leaders; (2) suggested procedure in meeting criticism of instructional materials and topics; (3) principles of selection, preparation, and presentation of materials of instruction; and (4) statements of other organizations and prominent individuals concerning freedom and responsibility in the use of instructional materials and controversial topics.

The booklet may be obtained for seventy-five cents from the National Council of Teachers of English, 8110 South Halsted Street, Chicago 20, Illinois.

*Booklets on life-careers* Recently a series of advertisements on "careers" has appeared in several popular magazines. The topics include "Should Your Child Be a Teacher?" with similar questions in which the word "teacher" is replaced by "lawyer," "doctor," and "aero-

nautical engineer." All are based on interviews with outstanding authorities in the field being considered. Although apparently directed to parents, the material has value for high-school students who are trying to decide on a career. For example, the one on teaching as a career discusses the cost of training, financial prospects, opportunities for women, employment prospects, personality requirements, and the importance of the teacher in society.

In response to numerous requests for reprints, the sponsoring insurance company is making each of the advertisements available in booklet form. They may be obtained, without cost, from the Public Relations Department, New York Life Insurance Company, 51 Madison Avenue, New York 10, New York.

Job opportunities in the life-insurance business are set forth in a thirty-two-page booklet entitled *Invitation to Youth*, published by the Educational Division, Institute of Life Insurance. Colorfully illustrated and written from the point of view of high-school boys and girls, it surveys the career opportunities within the life-insurance business, both in home offices and in the field.

The booklet emphasizes the variety of opportunities for young people in the almost eight hundred companies in the insurance business, presents job descriptions, and briefly lists the educational requirements for over twenty jobs related to the operation of a life-

insurance company. The booklet states:

Probably no business in America provides a greater variety of employment, with prospect of advancement, for high-school graduates.

When you go to work for a life-insurance company you have an unusual opportunity to learn while you earn. Because so many of their operations are highly specialized, most of the companies encourage their employees to continue studying and offer special educational programs designed particularly for them.

*Invitation to Youth* will be of help to teachers and vocational counselors in secondary schools, as well as to students themselves. Single copies are free to librarians and educators; classroom quantities are available at fifteen cents each. Requests may be addressed to the Educational Division, Institute of Life Insurance, 488 Madison Avenue, New York 22, New York.

#### SCHOOL AND COLLEGE PROGRAM FOR TEACHERS

THE SECOND SESSION of the School and College Program for Teachers will convene at the University of Chicago from June 28 to July 30, 1954. The program is concerned primarily with problems of articulation between high school and college. It will be conducted by means of demonstration teaching of high-school classes in biological sciences, English, humanities (literature, art, music), physical sciences, mathematics, social sciences (including history), French, and Ger-

man, and by means of seminar discussions, laboratories, and occasional lectures.

This session, as was the first session in 1953, is jointly sponsored by the University of Chicago and the Chicago public school system. The program is supported by a grant from the Fund for the Advancement of Education.

On a typical day, the participant spends one hour observing his "demonstration section," which is taught by a member of the University of Chicago faculty and in which the students are high-school Juniors and Seniors from the Chicago public schools. The demonstration class is followed by two hours of discussion with the instructor and fellow-participants—criticism of the class, planning for future classes, preparation of examinations, and selection and preparation of materials. On three afternoons each week, lectures or discussions of interest to either the entire group or to various combinations within it will be scheduled. No participant attends demonstration classes in more than one subject.

One-third of the participants will be selected from the faculties of junior colleges and colleges, two-thirds from the faculties of high schools. Scholar-

ships will be granted in the amount of full tuition (\$120). The capacity of the program is limited, and some preference will be given to groups of teachers representing the various fields of study within a single institution or in neighboring institutions. Graduate credit in education is available for those who wish to apply for it. University housing, library, and recreational facilities are available to all participants.

Applications and inquiries should be addressed to Professor Harold B. Dunkel, University of Chicago, Chicago 37, Illinois.

#### GUIDANCE AND PERSONNEL CONFERENCE

THE Eighteenth Annual Guidance and Personnel Conference will be held on Thursday and Friday, June 24 and 25, 1954, at the University of Chicago. As usual, the conference will be patterned as much as possible as a workshop. The general topic will be "Research and Its Application to Guidance Practice in Schools, Colleges, and Related Organizations." For detailed information about this conference workshop, write to Robert C. Woellner, Room 305, Administration Building, University of Chicago, Chicago 37, Illinois.



## WHO'S WHO FOR APRIL

*Authors of news notes and articles* The news notes in this issue have been prepared by MAURICE F. SEAY, professor and chairman of the Department of Education of the University of Chicago. ISIDORE STARR, teacher of social studies in the Brooklyn Technical High School, presents his views on the philosophy of John Dewey, which has often been misinterpreted and misunderstood, and on its application to the present and the future. ROBERT A. HEIMANN, assistant professor of education and counselor-trainer, School of Education, Arizona State College, and QUENTIN F. SCHENK, center director, Neighborhood House, Madison, Wisconsin, and lecturer in social work at the University of Wisconsin, explore the relation of social-class and sex differences to achievement in high school. SAMUEL WEINGARTEN, instructor in the Department of English at Chicago City Junior College, Wright Branch, reports the results of a study made to determine the influence of voluntary

reading in aiding young people to master the various developmental tasks of life. BRYAN F. SWAN and GENEROSE DUNN, both teachers in the Laboratory School of the University of Chicago, describe a unit on atomic energy taught to junior high school students by means of films, readings, demonstrations, and construction of exhibits. CLAYTON M. GJERDE, associate professor of education at San Diego State College, and MARVIN D. ALCORN, professor of education at the same institution, present a list of selected references on extra-class activities.

*Reviewers of books* JOHN WITHALL, associate professor of education, University of Delaware. PROCTER THOMSON, associate professor of economics and of education, University of Chicago. MARGOT F. HAMP, instructor in art and in education and teacher in the Laboratory School, University of Chicago.

## JOHN DEWEY, MY SON, AND EDUCATION FOR HUMAN FREEDOM

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JOHN DEWEY says that "what the best and wisest parent wants for his own child, that must the community want for all of its children" (12: 1). For the past seven years I have been watching my son grope his way from infancy to childhood. The comforting confines of the crib gradually have given ground to the freedom of the household, then to the disturbing new world of the public school. In his growth I have seen the environment make its demands on him and have been impressed, in turn, by his attempts to manipulate his environment, especially his parents.

At the same time I have been watching this world of ours grope its way into the future. Some time ago a disturbing newspaper article appeared, warning that the future may belong to the praying mantis rather than to our sons and daughters (1: 25). The writers tell us that extensive use of the hydrogen bomb may generate enough carbon 14 to pass beyond the "radiation threshold," with the predicted result of human sterility or the warping of the reproductive process.

We have here, in Deweyan terms, a

"tensional situation." We have here, also, several methods of solution which Charles Sanders Peirce (the formulator of pragmatism) perceived would always be offered when man's beliefs were confronted by real doubts. Among these are the traditional methods of tenacity and authority, which are often characterized by capriciousness and arbitrariness. Then, there are those reassurances to our doubts which are dictated by our reason or by our tastes, but these have all the weaknesses of traditional a priori "metaphysical philosophy." And we have what is for Peirce the fourth and best method of all, the method of science (2: 5-41).

As a parent and as a teacher in the public schools, I have had to think through and discuss the alternative solutions to the many significant problems that always seem to swirl about us. And my conviction has grown all the more strong during the war and postwar years that one of the most stimulating clues to a method of approaching answers is to be found in what Peirce called the "scientific method" and what John Dewey referred to as "creative intelligence."

True, the road of formal education is not the only road that most men must walk through life. But if my son is going to be required to spend his most formative years in a school system, I should prefer that his training be rooted in a system which prepares him to understand the past and the present and to view the future as an adventure in the reconstruction of human experience. Having had the opportunity recently to read widely in the works of Dewey—rather than about Dewey—I find myself strongly drawn to his philosophy of education. Since many of his ideas have been misrepresented (in many cases unintentionally), perhaps a re-examination today of some of his thinking might be a refreshing breath of air amidst the many winds of doctrine that are blowing across the educational forum.

When a man has written as widely and as intensively as our greatest educational philosopher, he is bound to have made statements which can be and are attacked by critics. In this article I should like to examine sympathetically some of the major ideas of John Dewey as I see them in 1954 and as they might apply to the education of my son.

#### DEWEY'S EMERGENT MIND

Crucial to any philosophy of education is a concept of "mind." Finding little merit in the traditional separation of body and mind or in the "stockroom" version of mind as labeled storage bins of memory, imagination, and other faculties, Dewey,

motivated by his biological training, placed mind within the stream of cosmic evolution (4: 422-35).

In the opening pages of Rachel Carson's *The Sea around Us* (3: chap. i), we find ourselves in the twilight zone of the ocean and of life. The explanation of just how or when inanimate matter crosses the intangible line to emerge as living substance is still largely unknown to us. But, although there are many lacunae in the theory of evolution, Dewey develops a provocative set of propositions in which mind emerges as the most important product in the course of the evolution of matter.

Dewey poses three levels of behavior: the physical, the psychophysical, and that of mind. To him a thing is what it can do and does; the essence of anything is the way it behaves under certain conditions. On the basis of this premise, individuality appears at all levels of behavior. Dewey refuses to consider physical matter as inert and lifeless, for he finds here selective behavior, or preferential action. Thus, rusting and reaction to a magnet are properties unique to iron. Certainly, there is individuality in such selective responses, even though the pattern is one of cause and effect.

When we enter the second level of behavior, the psycho-physical level of the plant and the animal kingdoms, the cause-and-effect relationship gives way to that of stimulus and response. Both observation and experiments indicate that on this level of behavior we find sentience (the division of the

environment into favorable and unfavorable factors), serial behavior (cognitively guided behavior), and a category of individual differences within species—all of which presage mind.

Mind is born under social conditions cemented by language—the “significant symbols” of George H. Mead (16: 117–25) and the “artificial signs” of Dewey which make deliberate communication possible. Here we find a means-consequences nexus, not automatic or irrevocable, but characterized by delayed responses. The level of behavior which is mind enables us to engage in role-taking and in internal vocalization, or thinking. It enables us to recognize the doubtful as being “doubtful,” a block as a “block.” It makes possible the organization and selection of available means; the choice of alternative ends; and the projection, when necessary, of new, more complex, and more desirable goals.

Behavior at the various levels consists of interactions between organism and environment. Originating in a disturbed equilibrium, behavior becomes efforts to adjust and to attain a restored equilibrium. For mind, this pattern takes the course of a tensional or problematic situation, an inquiry as to means and consequences (reflective behavior), and the attainment of a satisfactory adjustment.

If mind has emerged out of the process of natural evolution, there remain many potentialities of mental

behavior still untapped. If mind *is* what mind *does*, then public education has its task cut out for it. If the mind of man moves from problems to solutions within the context of its natural and social environment, the education of man must be grounded in problematic situations, in ideas as guides to action, and in the constant evaluation of transformed situations.

#### THE ROLE OF THE PUBLIC SCHOOLS

Americans have great faith in public education, and that is as it should be. However, so great is this confidence that there has developed, of late, the tendency to ask the schools to assume many burdensome responsibilities. As Dewey so aptly characterized it, “The public school is the willing pack horse of our social system; it is the true hero of the refrain: ‘Let George do it!’” (15: 107.) But, if George is going to do anything at all, he must be permitted to function under certain conditions.

Perhaps William James’s use of the “corridor theory” (14: 54) to explain pragmatism can help us to understand Dewey’s conception of the public schools. Imagine a corridor with innumerable chambers opening out of it. The chambers represent the private world of the family, religion, fraternal associations, clubs, and the like. The corridor, let us assume, represents the public schools. All the people own the corridor, and practically all the children must pass through it. Obviously, since this corridor belongs to all, no

one group in the private chambers has the right to dominate or to take over the corridor.

The public schools may also be compared with a public garden in which the minds of the young are offered opportunities to grow, to develop, and to adjust to a world of scientific advances, technological forces, and spiritual conflicts. To accomplish this, the schools cannot be servile to vested interests or pressure groups. To produce men and women worthy of democratic life, we must strive for the liberation of creative intelligence by making the schools the public forums for all ideas.

We can put the concept this way: Human nature can and does change (18: chap. iii). We can approach this fact as lightly as, reportedly, did George Bernard Shaw in his famous quip that, if human nature never changed, we would still be climbing around in trees (18: 52). Or we can study it more seriously as did Muller in his excellent and thought-provoking book, *Science and Criticism* (17: 28-32, 118-25). But proof can be adduced from the natural and the social sciences that human nature has changed because man has learned how to think about vital issues.

If our schools teach the young *how* to think, then they will know *what* to think. For, obviously, teaching children what to think without teaching them how to think carries with it all the dangers of iron curtains for the mind and Chinese Walls for the body.

The public school should be willing to have its pupils examine all ideas, within the limits of the pupils' emotional and mental maturity. Since, for Dewey, ideas are hypotheses, "candidates for truth," the subject matter of activity, and the instruments of action (6: 188-92), it is only by learning how to manipulate ideas that our children can acquire an understanding of a civilization which is the product of great and revolutionary concepts. Only by learning that the meaning of an idea lies in what happens to it as it develops and that ideas should be judged by their success in doing what they are supposed to do can our youngsters appreciate the limitless possibilities inherent in the democratic way of life.

#### THE ROLE OF THE CURRICULUM

The most irresponsible of the many attacks to which Dewey's educational philosophy has been exposed has been the contention that, where his ideas prevail, subject matter must be smuggled into the classroom. This is a warped interpretation of his thinking, fathered probably by profound ignorance of his writings and by a passing acquaintance with some passages taken out of context.

Dewey's theory of mind—the mind of society (its habits, customs, ideas, and ideals) as an integral part of the mind in the individual—is founded on the importance of the communication of knowledge resulting from man's "transactions" with his environment.



We find Dewey referring to the "funded capital" of civilization, the "cultural deposits" of the past, and the "funded meanings" of world-history. Dewey's theory of mind is a tacit recognition that in our thinking we stand on the shoulders of the giants of the past. In this sense, knowledge is humanistic.

All that he asks of us is that we use subject matter to liberate human intelligence and human sympathy. To study history should be to understand to what extent we are all historic beings in our beliefs, values, morals, customs, habits, and ways of life. To study the societies of the past should be to understand how men reacted to the great crises of their cultures, so that we today can learn lessons for our day and for our problems. Subject matter can and should be used to teach our children to discriminate between yellow journalism and literary trash and the great literature "which inspires and makes more valid a man's life" (15: 104).

In *Experience and Education* Dewey does not spare his criticism of those who "make nothing of organized subject matter" (8: 9). He sees knowledge as a "potent agent in appreciation of the living present" (8: 11). The following passage emphasizes his thoughts on the role of subject matter:

... the sound idea that education should derive its materials from present experience and should enable the learner to cope with the problems of the present and future has often been converted into the idea that progressive schools can to a very large extent ignore the past. If the present could be cut

off from the past, this conclusion would be sound. But the achievements of the past provide the only means at command for understanding the present. Just as the individual has to draw in memory upon his own past to understand the conditions in which he individually finds himself, so the issues and problems of present *social* life are in such intimate and direct connection with the past that students cannot be prepared to understand either these problems or the best way of dealing with them without delving into their roots in the past. In other words, the sound principle that the objectives of learning are in the future and its immediate materials are in present experience can be carried into effect only in the degree that present experience is stretched, as it were, backward. It can expand into the future only as it is also enlarged to take in the past. . . . It is ground for legitimate criticism, however, when the ongoing movement of progressive education fails to recognize that the problem of selection and organization of subject matter for study and learning is fundamental [8: 92-96].

This lengthy quotation, of course, underscores Dewey's recognition of the place of organized knowledge in the curriculum. As anti-intellectualism is said to be rearing its ugly head, often in the name of progressive education, it is high time that the record be consulted and that Dewey's reputation be defended. However, there is his all-important admonition:

What avail is it to win prescribed amounts of information about geography and history, to win ability to read and write, if in the process the individual loses his own soul: loses his appreciation of things worth while, of the values to which these things are relative; if he loses desire to apply what he has learned and, above all, loses the ability to extract meaning from his future experiences as they occur? [18: 50.]

In this passage, Dewey, although he has been most critical of the humanities as traditionally defined, defends the humanistic spirit which he finds in all human knowledge. When Dewey goes so far as to say that no subject area has intrinsic or special intellectual value, he means that every subject can have great value for students *depending on what the teacher does with it*. In this sense, there is no hierarchy of values among studies, and every study can contribute to the understanding and enrichment of life. Dewey believes that subjects are deserving of study for their own sake. He says, in an infrequently quoted passage:

It is as true of arithmetic as it is of poetry that in some place and at some time it ought to be a good to be appreciated on its own account—just as an enjoyable experience, in short. If it is not, then when the time and place come for it to be used as a means or instrumentality, it will be in just that much handicapped. Never having been realized or appreciated for itself, one will miss something of its capacity as a resource for other ends [6: 281].

I have emphasized those thoughts of Dewey which I feel have been neglected by many of those who pose as his disciples. I do not think it is necessary at this point to describe Dewey's version of the activity program and his high regard for physical, manual, scientific, and technological training in the schools. Nor is it essential to develop his idea of the school in the community and the community in the school. These have been fully explained and publicized, and many of

these constructive ideas have been incorporated into present-day education.

The general acceptance today of the importance of pupil-teacher rapport and our recognition of the effectiveness of pupil interests as motivation for work attest to Dewey's influence. The great variety and ingenuity of present-day classroom methodology—committee reports, panel discussions, audio-visual aids and realia, field trips, projects, and others—are also traceable to Dewey's philosophy. And finally, the recognition that education is life and that its chief aim is to create a desire for continued growth or self-education is the greatest tribute to his inspirational genius.

#### THE METHOD OF CREATIVE INTELLIGENCE

Dewey was no methodological extremist. At one end of the scale he saw a traditional school setup dominated by rigid regimentation and authoritarian controls. At the other end he saw a pupil-dominated school as a radical reaction against domination by the teacher. He had no use for this type of extreme free-activity philosophy, and he derogated sharply any system which was built around the "deification of childish whim, unripened fancy, and arbitrary emotion" (7: 69).

The methodological golden mean he found in an inclusive term, "creative intelligence," which can mean many things to many people. To a man like Peirce, it would indicate the scientific

method of the laboratory. To James, with his psychological bent, it would mean "getting the go of a thing." To Dewey it meant all of these things and something more.

It is in *How We Think* that we find the best explanation of the term "creative intelligence." As man thinks, said Dewey, he seeks to pass from "a perplexed, troubled, or confused situation at the beginning," *through certain phases of reflective thought*, into a "cleared up, unified, resolved situation at the close" (10: 107-18). "Creative intelligence" is a method of thinking which seeks to clear up a problem or gratifies a need in a satisfactory manner. The five steps which intervene between the pre-reflective and post-reflective states are (1) suggested possible solutions, (2) the intellectualization of the problem, (3) the use of hypothesis, (4) the mental elaboration of the idea, and (5) the testing of the hypothesis by overt or imaginative action.

Sidney Hook, one of Dewey's most sympathetic interpreters, described this method very effectively. Referring to it as "the authority of rational method," he shows how it can lead to emotional maturity ("the habit of reasonable expectation") and intellectual maturity (respect for facts and the "reasonable assessment of evidence") (13: 9).

Or, as another sympathetic student of Dewey has put it: "The goal is in the methods, the end is in the means" (18: 91-92). If democratic ends cannot be attained without democratic

means, it is the function of the school to show how creative intelligence is the pattern of behavior necessary to a free people and to an ever changing society. Just as democracy is a form of "associated human living," so creative intelligence makes possible a society of "pooled and co-operative experience" (11: 59). The method of critical thinking means the involvement of the student in the educational process. Since some of the errors of yesterday have become the truths of today and since some of the truths of yesterday have emerged as the errors of today, we need a *public method* of verifying the facts and the data of human experience. That method Dewey had the genius to formulate and simplify for us.

#### FREEDOM AND CULTURE AND A COMMON FAITH

It is relatively easy to draw up a psychograph of the well-educated young high-school graduate on which many of us would agree. We can say that he ought to have an understanding of the democratic traditions of our country and of the march of democracy on the world-scene. He should be skilled in differentiating fact from fiction, informed opinion from demagoguery. Among his *active* habit-patterns should be tolerance and sympathy, community consciousness, and a willing participation in the life of his society. The nature and process of critical thinking should be an integral part of his practical judgment. He must

realize the existence of plurality in human values, diversity in human beliefs, and dangers in human dogmatisms. That is why we expect him to be sympathetic to free and honest inquiry and to intelligently critical analyses of the present, no matter how unpopular the viewpoint.

But there is something more. All of Dewey's thinking is rooted in two basic commitments. One is found in *Freedom and Culture* (9), where he takes his stand with the ethical and spiritual precepts of a free society. The second is stated in his *A Common Faith* (5), where he spells out his love for democracy in religious terms. He has a great, solemn, and inspiring belief in humanity, and for this he offers no scientific proof, because there is none. One explanation of his value-judgments might be, in Deweyan terms, that they are the by-products of his cultural matrix, nothing more or less. The other explanation is that Dewey truly was a deeply religious man, a "saint," in the words of one of his Columbia University colleagues. But no matter what the explanation, these two commitments—to democracy and to humanity—must, to his way of thinking, be the supreme test of our system of education. Dewey's faith in the ultimate success of his philosophy was deep and abiding. But, as he realized, the faith of one man, or of even a few, is not enough. It must be a common faith—sufficiently common to appear on the psychographs of most of our students.

#### CONCLUSION

It is time to conclude, and it is time to return to my son. That I am sympathetic to the ideas of John Dewey is obvious. That I should like my son to be educated within the context of his instrumentalist philosophy of education is self-evident. For if freedom has to be rethought by every generation and if modern man is not obsolete but is always in the process of creation, John Dewey has shown us at midcentury the best means of attaining and retaining our democratic goals.

Creative intelligence is the open mind, the scientific method. It can function only in an atmosphere of freedom—an atmosphere where we have the *ability* and the *opportunity* to look for the best of the alternatives. And where we have intelligence and freedom, we shall find responsibility to understand the consequences of our acts, to know the meanings of the things we learned, to have the power to carry a thing through to its conclusion, and to act with integrity.

No great system of philosophic thought has ever been destroyed or demolished by its opponents. It can be attacked, criticized, reconstructed, modified; but it lives on as part of the funded capital of man's cultural treasury. And so the charges against Dewey—that his philosophy is one of means and no ends, that it is one of "presentism" and "immediacy," that its view of human nature is naïve, that it underestimates the evil in our sophisticated society—continue their life in books and magazines. But with

good reason Dewey has been called the "philosopher of the common man" and the "philosopher of science and freedom"; for no matter what we may say for or against him, he is in the great tradition of American idealism. He is the prophet of a way of life in which the individual has integrity and society is infused with the dignity of each individual. In the race between civilization and annihilation, man has many roads. Perhaps that of Dewey offers all our sons a fighting chance.

The ideal ends to which we attach our faith are not shadowy and wavering. They assume concrete form in our understanding of our relations to one another and the values

contained in these relations. We who now live are parts of a humanity that extends into the remote past, a humanity that has interacted with nature. The things in civilization we most prize are not of ourselves. They exist by the grace of the doings and sufferings of the continuous human community in which we are a link. Ours is the responsibility of conserving, transmitting, rectifying, and expanding the heritage of values we have received that those who come after us may receive it more solid and secure, more widely accessible and more generously shared than we have received it. Here are all the elements for a religious faith that shall not be confined to sect, class, or race. Such a faith has always been implicitly the common faith of mankind. It remains to make it explicit and militant [5: 87].

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# RELATIONS OF SOCIAL-CLASS AND SEX DIFFERENCES TO HIGH-SCHOOL ACHIEVEMENT

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ACADEMIC PERFORMANCE and intelligence-test scores of high-school youth are determined, in large measure, by the cultural milieu of which the student is a part. Several recent investigations<sup>1</sup> have shown that boys and girls of lower socioeconomic status do not attain as high scores on intelligence tests as do children in the higher positions. Earlier studies, among them that of Douglass and Olson,<sup>2</sup> have indicated that girls as a group often receive higher school marks than do boys. It was felt that investigation of school marks and test scores in relation to both social-class and sex differ-

ences would throw new light on the relations of these factors to school achievement and would augment the findings of some of the recent social-class studies which have not always included the variable of sex difference in their design.<sup>3</sup>

## HYPOTHESES TESTED IN PRESENT STUDY

The study reported in this article is concerned with school achievement as measured by marks and provides evidence to show that both social-class position and sex are positively related to the marks which students receive in high school as well as to their scores on intelligence tests. The hypotheses to be tested are: (1) There are no mean differences in the marks and the test performances of students from higher and lower socioeconomic classes. (2) There are no mean differences in the marks and the test performances of boys and girls.

<sup>1</sup> a) Kenneth Eells, Allison Davis, Robert J. Havighurst, Virgil E. Herrick, and Ralph W. Tyler, *Intelligence and Cultural Differences: A Study of Cultural Learning and Problem-solving*. Chicago 37: University of Chicago Press, 1951.

b) August B. Hollingshead, *Elmtown's Youth*. New York: John Wiley & Sons, Inc., 1949.

c) W. N. Leonard, "Psychological Tests and the Educational System," *School and Society*, LXXV (April 12, 1952), 225-29.

<sup>2</sup> Harl Douglass and Newman Olson, "Relation of High-School Marks to Sex in Four Minnesota High Schools," *School Review*, XLV (April, 1937), 283-88.

<sup>3</sup> John G. Darley, "Special Review of *Intelligence and Cultural Differences*," *Journal of Applied Psychology*, XXXVI (April, 1952), 141-43.

## PROCEDURE OF STUDY

The data for this study were drawn from a larger investigation, "The Wisconsin Counseling Study," directed by John W. M. Rothney and financed by the Research Committee, University of Wisconsin. The parent study included all 869 Sophomores enrolled in two large and two small Wisconsin high schools. For the present study a sample of 120 students was drawn by random-sampling techniques from the parent population of 869 Sophomores. The number of students was reduced to 114 after the social-class categorizations were made, the 6 cases which were dropped being either in Class I or Class V. The study is concerned with differences between Class III and IV, the only groups for which adequate numbers were found.

The primary criteria used in classifying the 120 individuals into social-class categories were (1) father's occupation, (2) father's education, (3) mother's occupation, (4) mother's education, (5) number of siblings, (6) educational aspirations of family, (7) family participation in community affairs, (8) the type of curriculum followed by the student, and (9) the work experiences of the student. This information was obtained from the comprehensive guidance records which were compiled over a period of three years for each student in the study. The present authors arrived at independent classifications for each of the subjects of the present study and placed them in one of the five social classes. In twelve cases of disagree-

ment in classification, the authors resolved them by joint conference and reinterpretation of all available information.

Social-class categories as developed by Hollingshead in the *Elmtown's Youth* study<sup>4</sup> were used as the criteria of classification, with two exceptions: father's income figures were not available; and since school marks were to be a variable under consideration in this investigation, they were not used in determination of social-class status.

School marks<sup>5</sup> accumulated for the

<sup>4</sup> Hollingshead's classification criteria may be briefly summarized:

*Class I.*—Leisure; not labor, earn more than they can spend . . . class position by inheritance . . . rigid social code . . . education not highly regarded. . . .

*Class II.*—Members of large independent professions, family-owned businesses . . . salaried executives for Class I enterprises . . . hyperactive civic leaders . . . most highly educated group . . . social position secured through own efforts. . . .

*Class III.*—Primarily work for wages and salaries . . . own small businesses and farms . . . members of small, independent professions . . . all income spent, little savings . . . most nearly fit "American family" stereotype . . . use educational ladder to further social aspirations.

*Class IV.*—Poor, but honest, hard workers, pay their taxes . . . never get ahead financially . . . backbone of community . . . children aspire to high school, but parents not entirely convinced of its value.

*Class V.*—Looked down upon by all social classes . . . little respect for law . . . hold menial jobs . . . fatalistic about position . . . much poverty . . . resigned to lowly status in community . . . education limited usually to elementary school.—August B. Hollingshead, *op. cit.*, pp. 83-120.

<sup>5</sup> While school marks may be said to be unreliable, in current educational practice they play such an important part in most schools that the use of any other criterion would not be as mean-

four years of high-school attendance were averaged for each student. A standardizing and normalizing procedure was followed which took into account the shape and form of the distribution of marks for each school subject in each of the four schools. Marks in the major academic fields, such as English, social studies, science, mathematics, and languages, were used in addition to shop and commercial marks. Marks in art, home economics, physical education, and music were not included in determination of overall average marks. Mark distributions for the school subjects used were carefully examined by subject and by separate school, and T scores were calculated for each subject in each school.

The Henmon-Nelson Tests of Mental Maturity are given to almost all high-school students in Wisconsin as part of a state-wide testing program. Scores from this test were standardized, and a mean score of 50 was set for all students of this study.<sup>6</sup>

#### DISTRIBUTION OF SUBJECTS BY SOCIAL CLASS

As Table 1 indicates, the majority of the group of 120 high-school students in this study were found to be in social Classes III and IV. Therefore,

ingful in a study such as this; for it was felt that any social-class implications with respect to marks should have operational meaning for every teacher, counselor, and college-admissions officer.

<sup>6</sup>Robert Heimann, "Intra-individual Consistency of Performance in Relation to the Counseling Process." Unpublished Doctor's dissertation, University of Wisconsin, Madison, 1952.

only the students in these two social-class groups, a total of 114, are considered in the analysis to follow.

Approximately 37 per cent of the students were classified in Class III, both in this study and in the Elmtown study, but the per cents of students in Classes I and V in the present investigation were low. The per cent of the Wisconsin students who were classified in Class IV (58.3) was somewhat

TABLE 1  
DISTRIBUTION BY SOCIAL CLASS OF ELEVENTH-GRADE STUDENTS IN WISCONSIN STUDY AND ELMTOWN STUDY

CLASS	STUDENTS IN WISCONSIN STUDY		STUDENTS IN ELMTOWN STUDY	
	Number	Per Cent	Number	Per Cent
I and II...	4	3.3	35	9.0
III.....	44	36.7	146	37.4
IV.....	70	58.3	183	46.9
V.....	2	1.7	26	6.7
Total...	120	100.0	390	100.0

higher than the per cent reported by Hollingshead (46.9). This difference may be due to the use of communities of other types than that represented by Elmtown, the influence of new legislation in Wisconsin making school attendance compulsory until the age of sixteen, or to the increasing emphasis given in recent years to the need for a high-school education in current employment practices and in the Armed Services.

After normalizing procedures, no appreciable interschool differences were noted in comparing distributions of marks among the four schools. Be-

cause of the similarity and homogeneity in the school performances of the subjects of the four schools, they were treated together in the following comparisons.

#### DIFFERENCES BETWEEN SOCIAL CLASSES

*School marks.*—Differences in school marks were examined both between students in social Classes III and IV

sex differences. No appreciable inter-school differences in distribution of test scores were noted; therefore, the data were treated as one unit. Comparisons of intelligence-test scores were made between students in different social classes and of both sexes. There are also reported in Table 2.

Statistically significant differences were found between intelligence-test performance of students in Classes III

TABLE 2  
PERFORMANCE DIFFERENCES BY SOCIAL CLASS AND BY SEX

CATEGORY	NUMBER OF CASES	SCHOOL MARKS				HENMON-NELSON TEST SCORES			
		Mean	Standard Deviation	Critical Ratio	Probability Level	Mean	Standard Deviation	Critical Ratio	Probability Level
Class III.....	44	53.69	6.35	5.38	.01	54.09	9.19	3.83	.01
Class IV.....	70	47.79	4.71			47.42	8.65		
Girls.....	61	51.97	5.93	3.76	.01	51.22	9.08	1.50	.10
Boys.....	53	47.89	5.61			48.58	8.65		

and between boys and girls. A test of significance was applied, and the hypothesis of no mean difference in school marks was rejected at a probability level of .01 or less. The data are presented in Table 2.

Greater-than-chance differences in school marks are noted both between students in social Classes III and IV and between the sexes. In general, the students in social Class III and the girls achieved significantly higher school marks.

*Mental ability.*—Scores on the Henmon-Nelson Test of Mental Ability were selected for analysis of test performance in relation to social-class and

and IV, favoring Class III at the 1 per cent level of probability. Differences somewhat short of significance were found in comparing Henmon-Nelson performances of boys and girls.

#### DIFFERENCES IN MARKS OF SEXES IN SAME SOCIAL CLASSES

Further investigation was carried out to determine the performance differences in school marks between sex groups within a given social class. As the data of Table 3 demonstrate, girls accumulated higher marks than boys in both social classes. These differences were significant at the 1 per cent level and would seem to be in general

agreement with the usual findings of sex differences in marks. It would also seem that social-class differences on this measure are related to sex differences.

#### COMPARISON OF SEXES IN DIFFERENT SOCIAL CLASSES

*School marks.*—Social-class differences were compared within the same sex group to illustrate the general superiority of students in the higher social classes in accumulation of superior

of no mean differences in level of test performances for social-class groups. These data are presented in Table 4. They show differences, favoring Class III, significant at the .01 level of confidence for girls and at the .02 level for boys.

These contrasts in performance illustrate further the social-class differences of high-school pupils on the Henmon-Nelson test. Students in Class III, both boys and girls, received higher scores than did those in

TABLE 3  
WITHIN-CLASS SEX DIFFERENCES IN SCHOOL MARKS

Social Class and Sex	Number of Cases	Mean Mark	Standard Deviation	<i>t</i>	Probability Level	<i>F</i>	Probability Level
Class III:							
Girls.....	26	55.51	5.45	2.38	.01	1.45	Not significant
Boys.....	18	51.08	6.57				
Class IV:							
Girls.....	35	49.35	4.77	2.74	.01	1.31	Not significant
Boys.....	35	46.22	4.16				

school marks. These data are found in Table 4.

Students in social Class III were found to obtain marks superior to those made by students in social Class IV regardless of sex. These differences were greater than chance differences.

Comparison between the marks of Class III boys and those of Class IV girls (Table 4) yielded some differences in favor of the boys of higher social class, but these differences failed to be significantly greater than chance would allow.

*Mental ability.*—Further differences between social classes were explored, following rejection of the hypothesis

Class IV. Within-class sex differences failed to reach a significant level, but they were somewhat higher for girls.

When test scores of Class III boys were compared with scores of Class IV girls, no differences greater than chance were found, although the direction of the differences favored the Class III boys as a group.

#### ILLUSTRATIVE CASES

It was felt that a closer look at the performances of several individuals in this study, a "blue-ribbon sample," would bring out further the relation of social class and of sex to school achievement. Brief thumbnail sketches



of selected students from this study follow.

### BERT

Bert, a Class IV boy, was the first of his family to finish high school. Consistently high in performance on some twenty tests,

school marks were low, however, and he graduated 169th in his class of 250. Much of his consistently low academic record may be laid to his habitual classroom behavior of exhibitionism, "wisecracking," and pranks. In their reports his teachers noted a general lack

TABLE 4  
WITHIN-SEX SOCIAL-CLASS DIFFERENCES IN SCHOOL MARKS AND  
HENMON-NELSON TEST SCORES

Sex and Class	Number	Mean	Standard Deviation	<i>t</i> *	Probability Level	<i>F</i>	Probability Level
School Marks							
Girls:							
Class III.....	26	55.51	5.45	4.62	.01	1.31	Not significant
Class IV.....	35	49.35	4.77				
Boys:							
Class III.....	18	51.08	6.57	2.35	.02	2.49	.01
Class IV.....	35	46.22	4.16				
Boys, Class III....	18	51.08	6.57	1.07	< .30 > .20	1.90	Not significant
Girls, Class IV.....	35	49.35	4.77				
Henmon-Nelson Test Scores							
Girls:							
Class III.....	26	55.15	7.66	3.08	.01	1.36	Not significant
Class IV.....	35	48.31	8.94				
Boys:							
Class III.....	18	52.55	10.89	2.18	.02	1.75	Not significant
Class IV.....	35	46.54	8.23				
Boys, Class III....	18	52.55	10.89	1.49	< .20 > .10	1.48	Not significant
Girls, Class IV.....	35	48.31	8.94				

\* A special form of the "*t*" test was used in comparing the performance of Class III and Class IV boys as the *F* test indicated a heterogeneous variance. Edwards presents a special formula for *t* which allows some inference about mean differences when a significant *F* is found.—Allen Edwards, *Experimental Design in Psychological Research*, pp. 167-70. New York: Rinehart & Co., 1950.

including two Henmon-Nelson scores (his modal percentile rank was 90), Bert said, "I'll take fifty tests if it will help me get a scholarship . . . to college." Despite ridicule and his family's active opposition to his educational aspirations, Bert represents a potentially mobile Class IV youth, anxious to rise in social position through education. His

of co-operation. Bert is representative of a Class IV youth who in his desire for higher education must go against the pattern and expectations of his family and the social group to which he belongs. Part of this conflict of values seems to be reflected in the great disparity of his performances on tests and in his marks.

## DIANE

DIANE, a Class IV girl, scored at the ninth percentile on the Henmon-Nelson test; yet she graduated with a rank of 133 in a class of 250 students. Although she was pleasant, agreeable, and a fluent conversationalist, Diane's impression upon teachers and counselors was that of a student anxious to please and almost too ready to accept every suggestion made to her. The counselor felt that, in Diane's readiness to accept any suggestion without discrimination, there lay a basic desire to identify with the value system of the teachers in the school. With her counselor Diane explored the vocational possibilities of factory work, teaching, governess, early marriage, and physical education in the three years of counseling. Following graduation she enrolled in a one-year course in practical nursing. Diane seems to be an average Class IV girl who in her aspirations to "get ahead" is a model student, obedient, co-operative, but suggestible to an extreme.

## JIM

Jim, a Class II boy, was expected by his mother to follow the family pattern and go on to college. His early vocational choice of a hobby-shop or a woodworking shop, where he could "tinker with tools," was dropped in his Junior year when he announced that the family had definitely decided on further schooling for him. The most striking feature of Jim's post-school planning lay in his indecision and uncertainty. Eight times during the three years of counseling, Jim was given an opportunity to express a vocational choice. In all but the first interview, when he told of his interest in the hobby-shop, he failed to express any choice other than a strong feeling that he would not like a job involving manual labor but wanted to be a "white-collar" worker. His Henmon-Nelson score was at the tenth percentile, but he managed to graduate 33d out of a class of 100. "The Boy Scout type," was the way one of his counselors described Jim. "A pleasant,

nice chap . . . a model student anxious to please . . . a slightly built boy with a lack of aggressiveness or self-assurance" were descriptions of him given by several of his teachers. Jim enrolled as a Freshman in the state university following high-school graduation, but he "flunked out" before the year was up. Jim's in-school behavior followed family expectations although he entered college without reconciling his own aspirations with those of his family and his class.

## JOHN

John, a Class III boy, successfully resisted pressure by his banker father, who strongly wished him to go on to college. John's main interest was in mechanics, and his consistent job choice while in high school was in this area. He scored at the fifty-fifth percentile on the Henmon-Nelson test, and generally scored above average in all his tests, but graduated with a rank of 236 out of a class of 353 students. His teachers and counselor reported that he seemed apathetic in his general attitude toward school but that he showed marked enthusiasm when the subject of mechanics was brought up. Following graduation he began working for an uncle who owned an automobile repair shop. This pattern—a case of a boy who does not come up to the expected occupational level of his family group—is one observed rather often.

## MARGARET

Margaret, a Class III girl, reluctantly agreed to her father's desire that she attend a teacher-training institution rather than go ahead with her plans for an early marriage. She made this decision in an effort to pacify her family who had definite plans for her higher education. Her mother, who had been a night-club singer, encouraged her to try for the concert stage. Her father, who rose from employment as a machinist to the vice-presidency of a growing industrial firm, wished her to attend a private girls' college known as a "finishing school" to get the social polish he lacked.

Margaret's engagement and plans for marriage to a postal clerk were fought by her family, who, according to Margaret, did not wish her to "marry below her class." Her Henmon-Nelson scores were near the fiftieth percentile, but her rank in a class of 100 was 39. Margaret's situation seems to be an example of the use of education to further a family's social ambitions through a child.

#### CONCLUSIONS

1. Both social-class and sex factors operate as important differentials in the school performance for the individuals of this study. Girls and Class III students, on the whole, received higher over-all marks than did boys and Class IV students when compared group by group.

2. Performance differences on the Henmon-Nelson test were in favor of Class III students over Class IV students to a significant degree. Girls scored somewhat higher than boys, but not quite to a significant degree.

3. The across-class sex comparisons tend to stress the importance of recognizing the interrelation of sex differences to social-class differences. Further, they would warn of the oversimplifications which might be made in a social-class study that did not include analysis of sex differences in its design.

4. Clinical evidences of differences in individual performance warn of the danger of over-generalization of group data in relation to social-class and sex differences in achievement. Many variables operate to modify the relation between social class and achievement for a group. Some of the factors

suggested by the brief sketches of selected students are level of aspiration, family educational expectations, and a behavioral pattern of compliancy or rebellion on the part of the individual students.

#### IMPLICATIONS

1. Knowledge of the relationship of social-class and sex factors to school achievement should be stressed more in teacher-training programs, so that teachers will be cognizant of the important differences in performance stemming from social-class and sex factors regardless of causal inferences.

2. It is the observation of the writers that the value system and the educational aspirations of Class III students seem to be more in keeping with the value systems in operation in many high schools today than are those of students of the other classes. This hypothesis is more fully elaborated in much of recent educational writing dealing with social-class concepts.<sup>7</sup> In the higher social classes the motivation for success within the framework of the school system has certain aspects of identification with the adult—

<sup>7</sup> a) W. B. Brookover, "The Implications of Social Class Analysis for a Theory of Education," *Educational Theory*, I (August, 1951), 97-105.

b) Neal E. Miller and John Dollard, *Social Learning and Imitation*, p. 133. New Haven, Connecticut: Yale University Press, 1941.

c) W. Lloyd Warner, "Educative Effects of Social Status," *Environment and Education*, pp. 16-28. Human Development Series, Volume I. Supplementary Educational Monographs, No. 54. Chicago: University of Chicago Press, 1942.

d) W. Lloyd Warner, Robert J. Havighurst, and Martin B. Loeb, *Who Shall Be Educated?* pp. 58-109. New York: Harper & Bros., 1944.

the teacher. Students of higher social classes often are members of the same social group which creates and maintains the values taught in the classroom. Upper-class girls, especially, may have an advantage in their accumulation of higher marks, which influence the gaining of scholarships and awards and meeting college-entrance requirements. This bias should be recognized in considering the relation of secondary schools to higher education.

3. Marks do not reflect an absolute quantity but are influenced by motivation, intelligence, and personality characteristics. Therefore, it should be recognized that marks are, in part, functions of the background which the student brings to school with him. School personnel should be aware that they may tend to identify with, and accept, those students whose backgrounds best permit their learning within the middle-class curriculums taught in many schools, and that these forces are often reflected in the marks awarded.

4. Educators should again recognize the phenomenon that girls often receive better marks than boys. Edu-

cators should also be aware of the factors that give rise to this differential in order that academic evaluations may become more individualized and less partial to the more compliant cultural characteristics of girls. Another variable, reported by Carter,<sup>8</sup> Swenson,<sup>9</sup> and others, seems to indicate that women high-school teachers favor girls in their marking practices; and, since women teachers are in the majority, this factor must also be acknowledged in explaining the sex differential in marks.

Sex differences, while not constant in their impact among various cultural groups, nevertheless are apparent in all social groups. Therefore, it seems important that school personnel evaluate academic performance, not only in terms of the socioeconomic level of their students, but also in terms of the sex of the individual and the role that sex differences play in the value system of the group of which the student is a part.

<sup>8</sup> Robert Scriven Carter, "How Invalid Are Marks Assigned by Teachers?" *Journal of Educational Psychology*, XLIII (April, 1952), 218-28.

<sup>9</sup> Clifford Swenson, "The Girls Are Teachers' Pets," *Clearing House*, XVII (May, 1943), 537-40.

## DEVELOPMENTAL VALUES IN VOLUNTARY READING

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VALUES which books can have for the personal and social development of youth are frequently discussed in contemporary educational literature. Books have been catalogued according to such values, goals in reading instruction have been set for the utilization of such possibilities for influencing youth, and curriculum planning has included guidance that will help young people, through identification with characters and situations in books, to solve the problems which inevitably exist for them in their growth toward adulthood. All these efforts have been based on the assumption that books can aid the individual in attaining self-understanding and "equipment for living."

Personal testimonies confirming the fact that books are salutary in this way have been made. Directors of clinics aiding young people to become better adjusted within themselves and to society have told from their observations how reading materials, carefully selected to meet the needs of a young person, combined with other factors, have assisted him in this adjustment.<sup>1</sup> Smith sought through a questionnaire inquiry to learn how

reading had changed the thinking, attitudes, or behavior of 502 students in Grades IV-VIII.<sup>2</sup> Lorang studied the responses of 2,374 high-school students to a questionnaire which asked them to indicate what books and magazines had had a good or bad effect on them, what emotions had been aroused, and what actions had resulted from reading.<sup>3</sup> Neither of these studies, however, aimed to evaluate the effects of reading in terms of the developmental needs of youth as these have been defined by psychologists in the last several decades.

<sup>1</sup> a) Thomas Verner Moore, "Bibliotherapy," *The Nature and Treatment of Mental Disorders*, chap. xiii, pp. 216 ff. New York: Grune & Stratton, 1943.

b) Thomas Verner Moore, "The Calamities of Betty: Reading and the Treatment of Personality Disorders," *Twentieth Century English*, pp. 190-200. Edited by William S. Knickerbocker. New York: Philosophical Library, Inc., 1946.

c) Paul Witty, "Promoting Growth and Development through Reading," *Elementary English*, XXVII (December, 1950), 493-500.

<sup>2</sup> Nila B. Smith, "The Personal and Social Values of Reading," *Elementary English*, XXV (December, 1948), 490-500.

<sup>3</sup> Sister Mary Corde Lorang, *The Effects of Reading on Moral Conduct and Emotional Experience*. Washington: Catholic University of America Press, 1946.



The purpose of the questionnaire survey discussed in this article was to determine (1) the extent to which their voluntary reading of books had helped 1,256 adolescents and young adults master the developmental tasks characteristic of their growth level,<sup>4</sup> (2) the types of books which had developmental values for them, and (3) the kinds of life-problems that their reading helped them solve.

#### SUBJECTS OF THE SURVEY

The 1,256 students from whom data were obtained were enrolled as Freshmen and Sophomores in seventeen representative colleges and universities in New York, New Jersey, Illinois, Indiana, Ohio, Wisconsin, Missouri, Tennessee, Texas, California, and Washington. Their ages ranged from sixteen to thirty years. The reading which they were asked to recall might have been done at any time in the past. It was assumed that the replies would furnish, on the whole, data concerning a representative cross-section of the reading and of the developmental needs in early and late adolescence and in early adulthood.

#### INSTRUMENT FOR OBTAINING DATA

The data were obtained primarily through a questionnaire devised by the writer and administered as Form A in the branch of the Chicago City Junior College in which he teaches

and as Form B in the other participating institutions. These forms were identical except in two respects. First, the students answering Form B of the questionnaire were asked also whether their reading had helped them solve their personal problems. Second, they were asked to reply to twelve additional items concerning the names of books which had helped them in twelve developmental tasks of adolescence.

Table 1 summarizes the data obtained in response to the questionnaire.

#### VALUE OF BOOKS IN MASTERING DEVELOPMENTAL TASKS

*Self-understanding.*—Self-examination and self-understanding have been recognized as essential aspects of human growth as far back as the time of Socrates, who advised as a slogan for self-development, "Know thyself." Understanding the self and developing an adequate, satisfying ideal of self are today regarded by psychologists as important developmental needs of youth. In answering the question, "Have you ever read of a character in a story or play who seemed similar to you so that you imaginatively identified yourself with this character?" 354 (28.2 per cent) of the students indicated that they had made such an identification.

*Finding the ideal self.*—Research has led to diverse opinions concerning the extent to which youth find their ideal self in books as well as in their

<sup>4</sup> Robert J. Havighurst, *Developmental Tasks and Education*, pp. 30-72. Chicago: University of Chicago Press, 1948.

peers and in adults.<sup>5</sup> The ego ideal becomes a composite of all the identifica-

TABLE 1

EXTENT TO WHICH VOLUNTARY READING OF 1,256 ADOLESCENTS AND YOUNG ADULTS HELPED THEM MASTER DEVELOPMENTAL TASKS

DEVELOPMENTAL TASK	STUDENTS FINDING VALUE IN READING	
	Number	Per Cent
Self-understanding.....	354	28.2
Finding the ideal self.....	410	32.6
Personal qualities:		
Developing personal qualities like those of a character read about.....	375	29.9
Developing personal qualities like those of an ideal character.....	156	12.4
Personal behavior:		
Changing behavior because of something read.....	431	34.3
Trying to behave like character read about.....	261	20.8
Trying to behave like ideal character.....	92	7.3
Development of values:		
Changing attitude toward life as a result of reading.....	491	39.1
Receiving help in developing values for living or understanding of life.....	760	60.5
Solution of personal problems:		
Finding in reading a life-problem interesting because of its similarity to reader's problem.....	408	32.5
Receiving help in solving problem through reading.....	162*	19.9*
Choice of vocation:		
Having read within the last five years books related to vocations which they intended to follow.....	420	33.4
Having been helped to select a vocation.....	133	10.6

\* Included on Form B of the questionnaire administered to 816 students.

tions with people that the young person makes; among these people may be a character in a book who becomes for him an ideal whose traits and behavior he may seek to emulate. Such an ideal in their reading was found by 410 (32.6 per cent) of the students.

*Effect of reading on personal traits.—*

The extent to which readers are affected by their reading and the specific ways in which personality development and social adjustment are modified have not been fully established by research. To the question, "Have you ever tried to develop personal qualities like those of a character about whom you read in a story or play?" 375 (29.9 per cent) of the students answered affirmatively.

An attempt was made to determine the extent to which the characters who served as models for the attainment of personal qualities were also the ideal characters. Of the students responding, 156 (12.4 per cent) indicated that they had tried to develop personal qualities like those of an ideal character whom they had found in their reading. The per cent of responses to this question differs greatly from the per cent of students who found an ideal character in reading (32.6) and from the per cent who sought to attain the qualities of characters encountered in reading (29.9).

*Effect of reading on behavior.—*

\* Robert J. Havighurst, Myra Z. Robinson, and Mildred Dorr, "The Development of the Ideal Self in Childhood and Adolescence," *Journal of Educational Research*, XL (December, 1946), 255.

There has been an assumption that books can influence not only persons' thinking and emotions but also behavior of other types. Of the students participating, 431 (34.3 per cent) recalled having changed their behavior in some respect because of something which they had read. It may be assumed that the change in behavior indicated in these responses was the result of ideas and situations described, as well as of the impact of characters encountered in reading. In reply to the question, "Have you ever tried to behave like a character about whom you read in a story or play?" 261 (20.8 per cent) answered affirmatively.

To what extent were these characters whose behavior these young people had tried to imitate the ideal characters whom they had found in their reading? In response to a question designed to obtain this information, 92 (7.3 per cent) said that they had tried to behave like an ideal character whom they had found in their reading. These answers are in sharp contrast with those showing the per cent of students who found an ideal character in reading (32.6 per cent) and with those showing the per cent of students who indicated merely that they had tried to imitate the behavior of characters encountered in reading (20.8 per cent).

*Development of values.*—One of the most important tasks for self-development which adolescents must master is the building of values, the development of a philosophy of life. To the question, "Do you remember ever

reading a novel, short story, play, biography, autobiography, or poem which changed your attitude?" 491 (39.1 per cent) replied "Yes." Of the students responding, 760 (60.5 per cent) said that some of the books which they listed as having read in the last five years had helped them to develop values for living or to attain a better understanding of the meaning of life.

*Solution of personal problems.*—Important in all inquiries concerning the relation of reading to individual needs is the recognition by the reader of life-situations which have elements in common with problems which he himself must solve. Through such recognition he can see how other individuals have solved these problems and can perhaps gain some aid by incorporating these modes of adjustment into his own. In response to the question, "Have you ever found in a novel, a short story, a biography or autobiography, or a play which you have read a life-problem which interested you greatly because of its similarity to some problem which you yourself have had?" 408 (32.5 per cent) answered affirmatively. In answering the complementary question, "Can you say that you were helped in solving your own problem by this reading?" 162 (19.9 per cent) of the 816 students who answered Form B of the questionnaire said "Yes."<sup>6</sup>

<sup>6</sup> In order to obtain similar information from students in the institution in which this form of the questionnaire was not used, students there were asked to check an Inventory of Satisfac-

*Choice of vocation.*—The selection of, and preparation for, an occupation and the achievement of assurance of economic independence are among the most crucial tasks which adolescents must master. Books have long had an important role in assisting youth in the selection of their lifework. Of the students participating in this study, 420 (33.4 per cent) listed, among the materials read within the last five years, books related to vocations which they intended to follow. One hundred and thirty-three students (10.6 per cent) indicated that some of these books had helped them select a vocation.

*Summary of reading responses.*—It was assumed in this study that a student's affirmative indication of his reaction to his reading materials in respect to the points noted above indicated that his reading had contained developmental values for him. Of the possible number of developmental values expressed in these items of the questionnaire (twelve in Form A and thirteen in Form B), the average attainment for the group was four values. Four students attained the maximum number of developmental values. One hundred and eighty-three at-

tions Found in Reading Fiction (Form A, Test 293-42-1, Co-operative Test Division, Educational Testing Service, Princeton, New Jersey, 1950). Sixty-nine per cent of 440 students attested to having been helped in understanding themselves; 78 per cent to having attained an understanding of other people's motivations; 68 per cent to having noted other people's problems; 75 per cent to having seen possible solutions for their own problems.

tained not a single one of these values.

The average per cent of affirmative replies to items of the questionnaire was 27.4. On only one item out of a possible thirteen (the contribution of reading to the development of a philosophy of life) did at least 50 per cent in this group of 1,256 students answer affirmatively; the exact per cent was 60.5. The next item of developmental significance, in order of attainment, was the change in attitude effected by reading in 39.1 per cent of the group. Only 10.6 per cent of the students attested to having been helped by their reading in choosing a vocation.

#### BOOKS THAT HELPED IN MASTERY OF DEVELOPMENTAL TASKS

Twelve items in the final section of Form B of the questionnaire, which was administered to 816 students, constituted a series of statements in brief form of the twelve developmental tasks, shown in Table 2, which adolescents and young adults must master. It was assumed that reading which helped young people in these tasks had developmental value for them.

The students were asked to indicate "Yes" before each item describing a task which reading a novel, short story, biography or autobiography, essay, play, or poem had helped them to master. After the item so indicated, the students were asked to write the title of the book or other work read which had contributed to mastery of this task.

It was assumed that, when the same

book has helped more than one person to master a specific developmental task, there is a greater degree of probability that the book will generally have values related to this task. Seventy-seven books were found to have

had such value for at least two students in each instance. Fifty-seven of these books also had another value for one student, in each instance, in relation to some other developmental task.

TABLE 2

DISTRIBUTION OF DEVELOPMENTAL VALUES OF THIRTEEN BOOKS, EACH HAVING SUCH VALUES FOR AT LEAST TEN STUDENTS

DEVELOPMENTAL TASK	NUMBER OF STUDENTS INDICATING VALUE													
	Bible	Seventeen	The Robe	Seventeenth Summer	Of Human Bondage	The Prophet (Gibran)	Autobiography of Benjamin Franklin	Chesep by the -Dozen	Arrowsmith	Little Women	Forsyte Saga	Essays (Emerson)	Babbitt	Total
1. To have a better conception of your role in life as a man or a woman	11	....	10	....	3	3	2	....	1	1	2	4	5	42
2. To understand yourself better.....	9	2	3	4	3	4	1	....	1	....	....	1	1	29
3. To understand members of your family so that you can get along better with them.....	2	4	....	1	....	1	....	6	....	5	3	....	2	24
4. To get along with persons of your own age...	3	12	....	11	2	....	....	2	1	2	....	....	....	33
5. To work well with other people for a common purpose .....	4	....	6	....	1	1	1	2	2	1	....	....	....	18
6. To attain independence so that you can make decisions and act without dependence on older persons.....	2	1	....	1	2	3	2	....	1	....	....	5	....	17
7. To get along with persons of the opposite sex.....	....	5	....	....	1	....	....	....	1	1	2	....	....	10
8. To gain assurance that you will become economically independent.....	1	....	....	....	1	1	1	....	1	1	....	....	....	6
9. To gain assurance that you will attain a useful role in adult society....	7	....	....	1	2	....	2	....	....	1	1	1	2	17
10. To attain an ideal who serves as a model in your development.....	8	....	2	....	....	....	4	....	1	....	1	....	....	16
11. To prepare for marriage and family life.....	1	....	....	....	....	1	....	2	1	....	2	....	....	7
12. To know how to live with a marriage partner.....	....	....	....	....	....	....	....	1	2	....	1	....	....	4
Total number of students helped.....	48	24	21	18	15	14	13	13	12	12	12	11	10	223



In addition to these seventy-seven books, one hundred books had developmental value for a single student in respect to at least two of the developmental tasks; in some instances these values were for the same student. There were, too, 264 books mentioned once by a student in relation to only one developmental task.

Although these lists of books consist primarily of literary works from which young persons profited by making personal and situational identifications, there are in each list some "self-help" books of the type popular in recent years, offering general treatments of common problems and suggestions for solutions to dilemmas often faced by people.

From the first of these lists, the books which had the greatest number of developmental values for these students were determined. Thirteen books were found, each of which had had such values for at least ten students. The distribution of the developmental values according to the books in which they are found is shown in Table 2.

In all instances except one, each book in this list of 13 had several values for an individual student. The 223 developmental values which were attributed to these books had significance for 178 different students. Nine of the books were written in this century; that eight of these are novels is not surprising, since the reading of young people is usually extensive in this type of literature. It is noteworthy that with the exception of one

best seller, *Cheaper by the Dozen*, all these novels may be considered modern classics. Three of the thirteen books, *Little Women*, *Seventeenth Summer*, and *Seventeen*, are especially appropriate for adolescents. The four books not written in this century represent fiction, autobiography, the philosophical essay, and a variety of types of literature in the Bible.

The developmental values that a book may contain for an individual depend on his personal characteristics and needs. Yet the fact that seventy-seven books had the same developmental value for at least two students seems to indicate that the content of some books is related to the common needs of youth and is of potential value in helping young people. Tarkington's *Seventeen* was of value in helping twelve students in peer relations. Daly's *Seventeenth Summer* had the same developmental value for eleven students. Emerson's *Essays* (especially his "Self-Reliance") helped five students develop the ability to make decisions and act without excessive dependence on older persons.

#### CONTRIBUTION OF READING TO THE SOLUTION OF LIFE-PROBLEMS

*Identification with persons and situations depicted in reading.*—Of the 354 students noted earlier as replying affirmatively to the questionnaire item concerning their identifications with persons depicted in their reading, 278 replied more fully than by checking "Yes." Of these comments, 236 furnished complete information about

these students' experiences in this kind of identification.

Of the 408 students who indicated that they had read of life-situations which were comparable to their own, 355 gave further information than a mere affirmative reply. Of these, 309 gave answers with sufficient data to be used for analysis. In some instances the person with whom the reader indicated an identification was also in a situation with which the reader identified himself.

*Values in identification.*—Not all the characters with whom the 236 students identified in their reading showed personality conflict; indications of conflict were present in only 154. The other 82 had traits considered admirable by the reader; identification of himself with the character possessing those traits gave the reader a sense of gratification and prestige and reaffirmed his concept of himself as worthy. In fact, 26 of the students giving amplified answers to this item considered the character in whom they recognized traits similar to their own as their ideal. In most instances of identification with an ideal character, the student recognized the depiction of a person similar to himself, in a situation similar to his own, who ideally solved his problem.

Through identification with those characters having personality conflicts and socially undesirable traits, the student was led to self-understanding, which in turn could lead him to conscious efforts for improvement. Among the 119 students who

checked Form B of the questionnaire and who identified with characters in conflict, 38 (31.9 per cent) indicated that they had derived developmental values from the books in which such identifications were made.

Not all the situations with which the students identified were conflict situations—294 instances of identification with conflict situations occurred out of 408 identifications with situations. Of the 207 students checking Form B of the questionnaire who made such identifications, 118 (57 per cent) indicated that they were helped in a specific way through this kind of identification. Even when statistical evidence of help is lacking, it may be assumed that recognition of similarity of characters and their problems to himself and his problem had therapeutic value for the reader.

*Reading and the needs of youth.*—The 545 personal and situational identifications about which information sufficient to analyze was supplied by students in their comments can be classified in the following categories:

1. Family relations
2. Relations with age mates of both sexes: attaining status in the peer group
3. Understanding and getting along with people
4. Attaining adult status
5. The relationship of the individual to the environment
6. Attaining vocational status
7. Developing values for living and a philosophy of life
8. Concern about effects of lack of adjustment
9. Attention to personal traits, desirable and undesirable

These categories are not mutually exclusive, but the nature of the information available seemed to warrant use of all the categories. The comments from which these categories were derived included or implied needs and problems of the kind usually designated by psychologists as characteristic of the periods of adolescence and young adulthood. The largest number of problems revealed by identification with characters having personality conflicts and with conflict situations are in the areas of "Relationships with age mates of both sexes" (26 identifications with personalities in conflict, 69 identifications with conflict situations) and "Family relationships" (10 identifications with personality conflict; 83 identifications with conflict situations). If the categories "Understanding and getting along with people" and "Attaining adult status" are considered to overlap the two above-mentioned areas, then the prominence of the two areas which designate needed personal and social adjustment would be enlarged. "Adjustment to the environment" (not including situations related to the family and the peer group) and "Attaining vocational status" are areas of concern next in importance.

An examination of individual cases in the categories enumerated above shows that these students reveal, through their personality and situational identifications, the needs and problems which adolescents have. The statements concerning identifications (and of help derived from situational identifications by students who

checked Form B of the questionnaire) demonstrate that young people profit from reading in the following ways:

1. By attaining an understanding of themselves
2. By attaining gratification in a worthy concept of the self
3. By recognizing an ideal person suitable for emulation
4. By understanding other people's motivations
5. By noting other people's solutions to their problems
6. By seeing that their own problems are not unique
7. By acquiring perspective on their own problems
8. By finding solutions for their own problems

#### SIGNIFICANCE OF THE STUDY

The focus of this study was the voluntary reading of adolescents and young adults. In such reading they find not only enjoyment of the literary art and opportunities for vicarious experience but also a means for self-help in solving their problems of adjustment.

The significance of this study lies primarily in what the small per cent of students whose voluntary reading was purposive revealed concerning the developmental values in their reading. From this evidence the meaning that reading can have for other young people with similar needs can be inferred. It is the task of teachers, librarians, clinicians, and counselors to guide youth to books which combine interest and value for young people and which have potentialities for assuming a dynamic role in the cluster of factors which affect personal and social development.

## A UNIT ON ATOMIC ENERGY FOR JUNIOR HIGH SCHOOL

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### DEVELOPMENT OF THE UNIT

SINCE the summer of 1945, when the first atomic bombs were exploded, the ninth-grade students in the Laboratory School of the University of Chicago have been studying units on atomic energy. The first unit involved only the reading of current newspaper and periodical reports combined with demonstration and discussion of such fundamental science concepts as the structure of atoms, diffusion, and interconvertibility of mass and energy. The students asked good questions, many of which had to go unanswered. As the volume of literature in the field increased, the teacher was kept busy trying to find answers to the students' inquiries.

After a few years the senior author of this article wrote a paper tracing the scientific developments leading up to the discovery of getting energy from splitting atoms. Later on, this paper furnished the starting point for an assembly program given by the science classes.

With the exception of the first unit, these units on atomic energy were studied near the end of the ninth grade. By that time the students had

learned, from their study of chemistry, electricity, radiation, and the like, many of the science principles leading up to the splitting of atoms.

### TRYING THE UNIT WITH STUDENTS OF VARYING SCIENCE BACKGROUNDS

There was some curiosity on the part of the teachers as to whether a unit involving many of the major science concepts could be managed by students who had not yet studied ninth-grade science. The opportunity to try such a unit with this type of student came with the summer session of 1953. The guiding principle of this session was to be enrichment, and the general theme of the subject-matter content was to be natural science. Developmental reading of science and of other materials was to be emphasized.

*Composition of student group.*—The student group was composed of eleven boys and nine girls, who had completed Grades VII or VIII in fourteen different elementary schools. The amount of formal science instruction of the students varied from none to four years.

*Scheduling of classes.*—Summer school was in session mornings only,

and the first two periods of forty-five minutes each were assigned to science and reading. This schedule permitted flexibility in planning the program of activities, such as interchange of periods or lengthening one period and shortening the other.

*Approach.*—A problem approach was used in presenting the subject matter to the students. Six general problems were investigated:

1. What does an atomic explosion look like?
2. What damage does an atomic explosion do?
3. How can we protect ourselves from atomic explosions? (a) Blast? (b) Heat? (c) Radioactivity?
4. What are some constructive uses of atomic energy?
5. How can we use science principles to help us to understand and to live with atomic energy?
6. What were some of the scientific discoveries leading up to getting energy from splitting atoms?

#### TEACHING PRINCIPLES

Because atomic explosions are very dramatic, we introduced the work of the summer by showing motion pictures of atomic explosions. The films were those taken of the experimental explosions on Bikini, on Eniwetok, and in Nevada.

To help the students acquire a means of understanding and interpreting these motion pictures, the instructors, before showing the films, gave a number of demonstrations of science principles and showed the students how to use them in solving a problem. A simple exhibit demonstrating electrical principles served to

show them how a principle operates in a number of situations and how these principles can be used to solve new problems. Certain electrical principles were demonstrated, and the exhibit was left set up for students to manipulate whenever time was available. The students were then shown demonstrations of the following physical principles:

1. Air takes up space.
2. Air is elastic; hence, longitudinal waves are set up when air molecules are set into vibration.
3. Air has weight and exerts pressure.
4. Most materials expand when heated and contract when cooled.
5. Bodies at rest tend to remain at rest, and bodies in motion tend to continue in motion in a straight line.
6. Solids are changed to liquids and liquids are changed to gases when heat is added.
7. Warm air holds more water vapor than cooler air.
8. Rising air expands and gets cooler.

The motion picture *Operation Crossroads* (6) was then shown. After the showing, the students explained what they had seen in light of the principles earlier demonstrated. Several facts about an atomic explosion were told to them, for example, that the explosion gives off radioactive substances which are harmful to man and can make other substances radioactive; that the explosion heats the air to incandescence for a brief interval. On the basis of the principles which they had learned, the students reasoned that some materials near the blast were vaporized; that the air was violently expanded; that the high pressure produced a strong wind; that, because



cooler air holds less water vapor than hot air, the cloud which appeared was formed by the expanding column of air above the explosion.

Two other motion pictures of atomic explosions, *Operation Greenhouse* (7) and *Target Nevada* (9), were also shown and discussed. These discussions brought out some additional science principles needed to help understand the effect of atomic explosions. These principles were added to our list. The principles we used did not explain the total effect of an atomic explosion. The main idea was to show how simple, everyday science principles can be used to explain something new.

#### DEVELOPMENTAL READING

During the first phase of the work, the reading teacher introduced easy-to-read but interesting biographical sketches of the Curies, Einstein, Fermi, and other famous scientists whose work led to the discovery of atomic energy. As each student was encouraged to read at a speed which was comfortable for him, he became conscious of his reading rate and tried to improve it. Speed and comprehension tests on this material were given. The purposes of these activities were to stimulate interest, to increase reading rate, and, at the same time, to prepare the student for the more difficult reading ahead.

The motion picture *Atomic Alert* (2) was next shown because it seemed important to go immediately to the problem of protecting ourselves from the

dangers we had seen. After showing this film, we used an objective test to point up certain of its highlights. The discussion which followed showed that there was great interest in finding out more about radiation from radioactive materials. The small booklet, *A B C's of Radiation*<sup>1</sup> was then introduced as a reading exercise. A number of demonstrations were given to help the students understand radiation. An objective test was administered on the reading material.

#### THE DEMONSTRATION EXHIBIT

By this time the number of science principles that had been encountered was substantial. Although many of these were familiar, it seemed advisable to provide activity of some sort to reinforce the students' understanding of these principles. Furthermore, up to this point the opportunity for student laboratory work had been limited. Therefore, an exhibit was planned to show experimental setups which demonstrated the science principles that the class had studied and would study in more detail later. The exhibits consisted of demonstration devices plus cards on which the students wrote the principles demonstrated and their application to atomic energy. Each student prepared at least one exhibit, and the exhibit was photographed, with the student standing beside it. The pictures were made into transparent slides. After the pictures were taken,

<sup>1</sup> Brookhaven National Laboratory, *A B C's of Radiation*. Hamilton, Ohio: Champion Paper & Fibre Co., 1949.

the exhibits were set up in a spare classroom, where group members as well as visitors could browse. The slides were completed before the end of the summer and shown to the group. At this showing each student explained his own exhibit to the group.

It should be mentioned that the demonstration exhibit was highly structured. The students were given duplicated lists of the principles to be exhibited. Included on this list were principles which they had not yet studied but which were needed to understand the next steps. The students were asked to choose at least one of the principles. The demonstration equipment had been previously laid out so as to speed up the operation. A model of how the accompanying card should be prepared was written on the board, and further suggestions for each principle were written on a slip of paper. White four-inch by six-inch cards, a slightly larger piece of colored construction paper, and transparent tape were provided. The students then tried out their demonstrations to become more familiar with them and prepared the exhibits and exhibit cards.

The activity was highly structured in this way because the reference material had been taken from so many sources and because the students were unfamiliar with the available equipment for demonstrating. This structuring did not inhibit the students' creative activity. The structured equipment was only the beginning of

their activity. They tried a number of variations with their experiment and informally showed them to others. Their thoroughness also showed up in the way they wrote up their exhibit cards. While most of them followed the general pattern set up for the card, there was considerable variation in their product.

#### A FIELD TRIP

The motion picture *Making Atomic Energy a Blessing* (5) served to introduce the students to the constructive uses of atomic energy. A trip to see the University of Chicago's betatron and synchrocyclotron gave them a good idea of what these machines looked like and how they were used for research purposes. The teacher found it easy to explain how these machines worked by recalling a few of the science principles that had been earlier demonstrated and exhibited.

#### READING AND VOCABULARY EXERCISES

The motion picture *Unlocking the Atom* (10) was shown to point up the fact that a long line of discoveries finally led to a successful chain reaction. It served to introduce the reading of the paper "Energy from Splitting Atoms,"<sup>2</sup> a story of scientific discovery leading up to a chain reaction. Objective-test exercises of the multiple-choice type were prepared for five- or six-page passages of the paper. In the first exercise the students were

<sup>2</sup>Bryan F. Swan, "Energy from Splitting Atoms." Unpublished paper. Pp. 62 (processed).

asked to read the passage and answer the questions from memory. They prepared two sets of answers, one of which they handed in as they completed answering the questions. They then corrected the second answer sheet by referring to the passage. Each student then had two scores: a memory score and a reading score. The correct answers were then read and discussed when discussion was necessary.

After the reading exercises had been administered several times, the procedure was changed to one in which the students could refer to the passage at any time while answering the test questions. This was done to give the students a greater feeling of security in reading the passages that contained a considerable amount of new material. They were asked to note the distractors in the test items. These distractors had been chosen because they represented likely misinterpretations of the reading material. In this way the students could evaluate their own reading skill as they solved the problems.

Several vocabulary tests were administered during the summer. One of these gave the students an opportunity to check their knowledge of science words. The students were given a list of twenty science words and asked to count the number which they thought they knew. An objective test on the words was then administered. This turned out to be an excellent self-evaluative exercise.

During the period in which they were reading the passage from "Ener-

gy from Splitting Atoms," the students were also doing laboratory work, studying their exhibits of science principles, and participating in lecture demonstrations. These activities were designed to consolidate and enrich the ideas gained from the reading exercises.

#### CONCLUDING COMMENT

In general, the unit was very successful. The students were interested in the work, and the tests and evaluative devices indicated that they were learning. The authors believe that the success of such a unit depends on the students' possession of a working knowledge of some of the principles before the unit begins. Without such a knowledge, the students find that the load of principles is too great, and they get lost in trying to relate unknown principles to new subject matter. If they know some of the principles, they are presented with an excellent problem of applying familiar principles in new situations and of learning a few new principles.

#### FILMS\*

1. *A for Atom*. 15 minutes, color. Schenectady 5, New York: General Electric Co., 1953.

Shows, by animation, the structure of the atom, how large amounts of energy are released from certain atoms, and how this energy can be applied to peacetime uses.

2. *Atomic Alert*. 12 minutes, black and white. Wilmette, Illinois: Encyclopaedia Britannica Films Inc., 1951.

Explains the effects of atomic explosions and the protective measures that can be taken.

\* These are all 16mm sound films.

3. *Atomic Energy*. 10 minutes, black and white. Wilmette, Illinois: Encyclopaedia Britannica Films Inc., 1947.

Explains with animated drawings some of the ideas that are fundamental to an understanding of atomic energy. Natural radioactivity, nuclear synthesis, and nuclear fission are explained.

4. *Bikini—Radiological Laboratory*. 22 minutes, color. New York: United World-Government, 1951.

A survey of the effects of radioactivity on plant and animal life after the Bikini test explosions.

5. *Making Atomic Energy a Blessing*. 25 minutes, black and white. New York: United World-Government, 1952.

Shows many peaceful uses of atomic energy.

6. *Operation Crossroads*. 27 minutes, color. New York: United World-Government, 1949.

Description of preparations for and of the actual Bikini test explosion.

7. *Operation Greenhouse*. 25 minutes, color. New York: United World-Government, 1951.

Describes Eniwetok tests of 1951. It shows the heat and blast effects on buildings, aircraft, etc.

8. *Operation Sandstone*. 18 minutes, color. New York: United World-Government, 1951.

Describes preparations for, and the explosions at, Eniwetok tests in 1948.

9. *Target Nevada*. 22 minutes, color. New York: Nu-Art Films, Inc., 1952.

Description of the tests of atomic weapons and their effects in Nevada.

10. *Unlocking the Atom*. 20 minutes, black and white. New York: United World-Education, 1951.

Story of scientific investigation by many scientists.

#### SELECTED REFERENCES ON ATOMIC ENERGY

##### JUNIOR HIGH SCHOOL READING LEVEL

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LEWELLEN, JOHN. *Exploring Atomic Energy*. Chicago: Science Research Associates, Inc., 1950.

LEWELLEN, JOHN. *Primer of Atomic Energy*. Chicago: Science Research Associates, Inc., 1952.

MUSIAL, JOE. *How Dagwood Splits the Atom*. New York: King Features Syndicate, Inc., 1949.

##### HIGH-SCHOOL READING LEVEL

BURNETT, R. W. *Atomic Energy—Double Edged Sword of Science*. Columbus, Ohio: Charles E. Merrill Co., 1949.

HECHT, SELIG. *Explaining the Atom*. New York: Viking Press, 1948.

##### FOR TEACHERS

EDINOFF, M. L., and RUCHLIS, HYMAN. *Atoms for the Millions*. New York: Whittlesey House, 1947.

GAMOW, GEORGE. *Mr. Tompkins Explores the Atom*. New York: Macmillan Co., 1944.

GLASSTONE, SAMUEL. *Sourcebook on Atomic Energy*. New York: D. Van Nostrand Co., Inc., 1950.

LOS ALAMOS SCIENTISTS. *The Effects of Atomic Weapons*. Washington: Government Printing Office, 1950 (revised).

SPOERL, EDWARD S. "The Lethal Effects of Radiation," *Scientific American*, CLXXXV (December, 1951), 22-25.

U.S. ATOMIC ENERGY COMMISSION. *Atomic Energy and the Life Sciences*. Washington: Government Printing Office, 1949. (Semi-annual report.)

## SELECTED REFERENCES ON EXTRA-CLASS ACTIVITIES<sup>1</sup>

CLAYTON M. GJERDE AND MARVIN D. ALCORN

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THE LITERATURE dealing specifically with extra-class activities published during recent months continues to present a wide variety of problems and proposals, indicative of the healthy concern educators have for the total development of today's youth. Most of the literature has appeared in periodicals, although one entire book was devoted to inter-scholastic athletics, and single chapters devoted to extra-class activities were found in such books as *The Work of the Modern High School* by Leslie L. Chisholm (Macmillan Co., 1953) and *Life Adjustment Education in Action* by F. R. Zeran (Chartwell House, Inc., 1953).

Several articles dealt with specific aspects of the extra-class activity program. The student council continued to receive more attention than other specific activities, while publications, assemblies, and finance problems perhaps received less attention than in past years.

A large number of the articles reviewed were concerned with broader

problems of administration of extra-class activity programs and with the co-ordination of extra-class activities with the rest of the curriculum. Authors continue to point out the values of extra-class activities and frequently suggest criteria for evaluating activity programs. The literature also reveals a continued concern for the problems of training and assisting faculty sponsors of activities.

There were at least two reports of state-wide or regional conferences dealing with leadership training, and two were devoted to activities of state-wide organizations.

The literature revealed a definite and perhaps growing interest in extra-class activities as potential influences on personality development and adjustment. One article actually pointed out the potential similarity between participation in extra-class activities and the process of psychotherapy.

443. "Administration of the Health, Physical Education and Recreation Program in Secondary Schools," *Bulletin of the National Association of Secondary-School Principals*, XXXVII (May, 1953), 93-136.

<sup>1</sup> See also Item 416 (Foehrenbach) in the list of selected references appearing in the March, 1954, issue of the *School Review*.



Includes several articles which approach the problems and the administration of athletic programs in secondary schools.

444. ANDEREGG, SALLY. "The Educational Value of Stamp Collecting," *School Activities*, XXV (October, 1953), 69-70.

Makes a good case for the recreational and educational possibilities of a stamp club.

445. BENERD, GLADYS. "How Do Pupils Benefit by Participation in the Co-curricular Program?" *Bulletin of the National Association of Secondary-School Principals*, XXXVII (March, 1953), 103-11.

Presents a well-documented summary of pupil needs and problems and indicates the benefits, especially in the development of social skills, to be gained from participation in co-curricular activities.

446. BILLINGSLEY, RAY H. "A Different Type of Record," *School Activities*, XXIV (February, 1953), 181-82.

Describes how slides and tape recordings were used to make a record of a Freshman orientation program. An undertaking equally applicable to other student activities.

447. BING, RONALD. "What Should Not Go into a Yearbook," *School Activities*, XXIV (April, 1953), 251-53.

Suggests to the yearbook sponsor pitfalls to be avoided if a satisfactory school history and a favorable public opinion are to be assured.

448. BOWDEN, E. L. "Current Trends in Administration of Student Activities," *School Activities*, XXV (September, 1953), 27-30.

Summarizes the findings of a national survey of current administrative practices in the student-activity programs of selected high schools.

449. BUEHLER, E. C. "Ten Commandments for the High School Debater," *School*

*Activities*, XXIV (February, 1953), 183-84.

Discusses briefly ten important guideposts for the contest debater.

450. CHRISTOPHER, A. Z., and HOWARD, W. L. "Cocurricular Activities in 200 Indiana High Schools," *School Activities*, XXV (October, 1953), 43-45.

Presents recent trends in student activities in Indiana, together with recommendations for improving such activities.

451. CONNELL, JOHN M. "The Spot Marked X: Mr. Brian Gets a Faculty off the Hook," *Clearing House*, XXVII (December, 1952), 227-32.

Written in fiction form, this is a convincing argument for the effectiveness of warm personal relationships in the administration and supervision of extra-class activities.

452. DODSON, TAYLOR. "Bowls or Boys?" *School Activities*, XXV (September, 1953), 11-13.

Stresses the educational values to be gained from a sound athletic program and describes practices which defeat educational objectives.

453. DUGAN, LUCILLE. "The Popular Projects of a Student Council," *Clearing House*, XXVIII (September, 1953), 15-17.

Reports the results of an evaluation by students and faculty of projects sponsored during a three-year period by the student council in one high school. Points out the values of this kind of evaluation.

454. ELLIS, G. C. "Student Council Workshop," *School Activities*, XXIV (January, 1953), 147-49.

Describes the activities of the fourth annual workshop of the Arkansas Association of Student Councils, held at Arkansas State Teachers College, with Harry C. McKown acting as consultant.

455. GILPIN, MILDRED. "Group Guidance and the Home Room Activity Hour," *School Activities*, XXV (September, 1953), 21-25.

Shows how group guidance is achieved during a home-room period in which students engage in a wide range of activities of a class and extra-class nature. Students receive credit for the activities.

456. GOTTFRIED, FRANKLIN JAY. "The Ohio High School Activity Association," *Educational Research Bulletin*, XXXI (September 17, 1952), 151-58, 167-68.

A report on a survey of high-school principals regarding the effectiveness of the Ohio High School Activity Association, which has been in continuous operation since 1907.

457. HARBERT, GRACE G., and LAMBERG, LOIS. "Our School Code," *School Activities*, XXIV (March, 1953), 211-13.

Traces the co-operative efforts of students and faculty of Niles Township High School, Skokie, Illinois, in developing a "student code of ethics" through the media of organized classes, home rooms, and assembly programs.

458. HARRINGTON, JOHNS H. "Supervision's Stepchild: Co-curricular Activities," *Junior College Journal*, XXIII (January, 1953), 280-84.

Because of the value of co-curricular activities and the importance of faculty leadership, the author recommends that capable staff members be made available to serve as resource persons to faculty advisers.

459. KARNER, ERWIN F. "Organizing and Promoting a Speech Festival," *School Activities*, XXIV (May, 1953), 281-83.

Tells the story of the First Southern Colorado Speech Festival.

460. KELLER, RUTH MAYNARD. "Ceremonies and Student Organizations,"

*School Activities*, XXIV (March, 1953), 223-24.

Indicates the importance of initiation or installation ceremonies and suggests means for making these more effective.

461. KIRKWOOD, ROBERT. "Amateurs on Stage," *School Activities*, XXV (December, 1953), 123-25.

Offers practical suggestions for the improvement of dramatic productions in high school.

462. LYTLE, CARLTON W. "Everyone Gets Into the Act in Our Consolidated-School Activities Program," *NEA Journal*, XLII (November, 1953), 490-91.

Describes how a consolidated school, which transports its students, developed an extra-class activity program to provide learning opportunities for all the pupils.

463. McCORMICK, VERA. "Suggested Programs for a Pan American Club," *School Activities*, XXV (October, 1953), 59-60.

Outlines a program of possible club activities for a school year.

464. McKINNEY, FRED. "Basic Similarities in Counseling and Extracurricular Activities," *Education*, LXXIII (December, 1952), 241-44.

Maintains that "there are certain conditions that are conducive to the improvement of emotional stability" and that extra-class activities have possibilities for providing such conditions. Through a case study the author focuses on the potential similarity between the process of psychotherapy and participation in an extra-class activity.

465. MILLER, RONALD W. "Evaluation Criteria for Assembly Programs," *School Activities*, XXV (September, 1953), 5-6.

Provides an excellent guide for the evaluation of student assemblies.

466. MOORE, HARRY. "Co-curricular Activities Demand Attention," *California Journal of Secondary Education*, XXVIII (March, 1953), 166-67.

Summarizes a plan for developing a statewide organization to "establish, develop, guide, and regulate all interschool activities and to secure a proper balance between curricular and extra-curricular activities." Proposes regulations and guiding principles to be considered in establishing such an organization in California.

467. MORRIS, J. RUSSELL. "Student Leaders' Conference," *School Activities*, XXIV (May, 1953), 275-77.

Describes an annual leadership conference for high-school youth held at Chico State College in Chico, California, where the "social, academic, and leadership problems of present-day high schools are analyzed and evaluated."

468. NATIONAL CONTEST AND ACTIVITIES COMMITTEE OF THE NATIONAL ASSOCIATION OF SECONDARY-SCHOOL PRINCIPALS. "National Contests for Schools—1952-53," *Bulletin of the National Association of Secondary-School Principals*, XXXVII (February, 1953), 9-13.

Each February and October issue of the *Bulletin* summarizes recommendations for participation in national contests and lists approved contests.

469. "Proceedings of the 37th Annual Convention, Hotel Statler, Los Angeles, California, February 21-25, 1953," *Bulletin of the National Association of Secondary-School Principals*, XXXVII (April, 1953), 5-504.

Includes a number of articles dealing with various phases of extra-class activities.

470. ROSE, MILTON V. "A School's Gift to the Whole Community," *School Activities*, XXIV (March, 1953), 214-15.

Describes a project of the School Civic Club of Public School 184, Brooklyn,

which enlisted the aid of children, parents, teachers, and merchants in exhibiting the work of the "children's school learnings."

471. SHEPARD, GEORGE E., and JAMERSON, RICHARD E. *Interscholastic Athletics*. New York: McGraw-Hill Book Co., Inc., 1953. Pp. xii+276.

Analyzes current trends and recommends policies and procedures for all aspects of an interscholastic program. An especially useful reference for administrators.

472. STERNER, WILLIAM S. "A Blind Spot in Teacher Education," *NEA Journal*, XLII (May, 1953), 301.

Advocates pre-service training in sponsorship of extra-class activities and points out how some colleges are trying to meet this need.

473. STEWART, GEORGE THOMAS. "Promoting a Chess Club," *School Activities*, XXIV (April, 1953), 260-62.

Indicates the objectives and mode of operation of the Tucson Senior High School Chess Club.

474. TOMPKINS, ELLSWORTH. "Pupil Activities from the Crow's-Nest," *School Life*, XXXV (November, 1952), 24-26.

Presents a brief but comprehensive survey of the status and trends in pupil activities in the modern high school and suggests eight criteria for evaluating an activity program.

475. TOMPKINS, ELLSWORTH, and SHIPP, FREDERIC T. "What Problems Face Activity Sponsors?" *California Journal of Secondary Education*, XXVIII (January, 1953), 48-50.

Reports the results of an inventory survey of a limited number of sponsors of extra-class activities in California schools, to determine the nature of the problems faced by such sponsors. Suggests a continuing use of such surveys within individual school systems.

476. TRUMP, J. LLOYD. "Extraclass Activities and the Needs of Youth," *Adapting the Secondary-School Program to the Needs of Youth*, pp. 160-79. Fifty-second Yearbook of the National Society for the Study of Education, Part I. Chicago 37: Distributed by the University of Chicago Press, 1953.

A comprehensive consideration of extra-class activities, including present status, values, trends, administrative problems, and illustrative practices in specific kinds of activities. Maintains that extra-class activities can be particularly effective in contributing to growth and development of youth provided adequate co-operative efforts are directed at planning, developing, and conducting the program.

477. UNRUH, ADOLPH, and WEHLING, LESLIE. "Business Education in Student Activities," *School Activities*, XXIV (May, 1953), 283-85.

Concludes, as a result of a study of nineteen schools in Illinois and Missouri, that students are not receiving the training in

business attitudes and methods that they should be acquiring through the student-activity program.

478. VAN POOL, GERALD M. "B for Sick Councils," *School Activities*, XXV (November, 1953), 83-88.

Prescribes twelve general remedies for an ailing council.

479. WOOD, DONALD I. "Leadership Training in the Student Council," *Bulletin of the National Association of Secondary-School Principals*, XXXVII (March, 1953), 112-28.

Discusses the place of the student council in the school program and suggests how the council can serve as a tool to provide leadership training. Gives an extensive bibliography.

480. WOOD, DONALD I. "How To Lead a Group Discussion," *School Activities*, XXV (September, 1953), 3-5.

Indicates the planning needed to enable high-school students to serve effectively as discussion leaders.

## EDUCATIONAL WRITINGS



### REVIEWS AND BOOK NOTES

NATHANIEL CANTOR, *The Teaching ↔ Learning Process*. New York: Dryden Press, 1953. Pp. xvi+350. \$2.90.

Professor Cantor sets forth in general terms the thesis of his book in this way:

We can sum up the burden of this [book] in a few words. We are not proposing that the classrooms of the country be turned into playgrounds in which pupils can play "cops and robbers" for twelve years or indulge in fitful fancies of the moment. If a two-year-old trips on the stairway in a home and the "progressive" parents instal an escalator to prevent further accidents, psychiatric care for the parents is indicated. The child must learn to deal with stairways even though he prefers to be carried. . . . [Likewise in learning] there are steep stairs which the pupil must climb. What are the capacities and strengths and readiness of the pupil? Learning must begin where the pupil is, not where the teacher says or hopes he is. The material, the content, cannot be ignored. That is a reality. The quintessential problem for the teacher is to be aware of pupil readiness, to observe the signs, to understand the feelings, and to extend the hand of sympathetic guidance to lead, to lift, to comfort, to correct, and to challenge [p. 311].

This reviewer, frankly, approached *The Teaching ↔ Learning Process* with some misgivings. A halo of negativism from contact with the author's *Dynamics of Learning* several years ago loomed in his mind. It speaks well for the book (and for the reviewer's objectivity too, I hope) that, despite this initial aura of negativism, the latest book leaves me with definitely positive reactions.

The book consists of an Introduction and fourteen chapters. There is also a brief Foreword by Professor Stephen M. Corey, of

Columbia University. The fourteen chapters are divided into four sections.

The first section, entitled "The Current Practice," comprises chapters i, ii, and iii. It underlines the importance of the social-emotional climate in the learning situation; differentiates between functional learning and rote memorization; and sets forth "nine major popular fallacies in current educational schoolroom practice" (p. 58).

The second section of the book, comprising chapters iv through ix, is entitled "The Teaching ↔ Learning Process." The author restates the importance of the teacher's creating a healthful psychological atmosphere in the classroom; describes the reality-centered school as the logical middle ground between the child-centered and the community-centered school; defines the necessarily "limited functions" of the teacher; points up the fact that a good teacher constantly challenges pupils in order to goad them on to further understanding; and, finally, insists that our evaluation techniques seem to have little relation to our stated and implicit objectives. The only real criterion of learning, the author avers, is changed behavior. Our paper-and-pencil tests, he points out, have little or no pertinence to the learner's changes in behavior.

Part III is called "New Light in Teaching." Dr. Cantor highlights in chapter x the striking similarity in the roles and aims of the psychotherapist, the social worker, and the teacher. In chapters xi and xii he lists the fundamental principles guiding effective instruction and the propositions (assumptions) that undergird modern educational practice.

Chapters xiii and xiv, comprising Part IV,



are headed "New Teachers for a New World." In broad terms the political, social, and economic premises upon which American and Western culture rests are outlined, and the book concludes with a brief assessment of the current educational scene and evidences of progress.

Before discussing the larger issues and strengths of the book, I shall present its minor frailties. First of all (and this may not be the author's responsibility), there are a distressingly large number of gross printing errors, which detract from the quality of the book—a number unusual in a Dryden Press book, it seems to me. One wonders, furthermore, whether as many verbatim quotations from Professor Cantor's seminar at Columbia University were necessary. Frequently, though not always, the discussion protocol seems to be an unnecessary appendage to a point that has already been made clear in the preceding text. Finally, there is an unevenness in the writing, in terms of changes in pace and level of communication, that distracted this reviewer. At times the style is pithy, straightforward, and even journalistic in tone; at other times the author seems to be striving unsuccessfully to coin a phrase; and sometimes he moves rather disconcertingly to another level of discourse and abstraction.

From this reviewer's frame of reference, the major strictures are these: The author does not seem to be abreast of the literature and the current educational research. This is evidenced by the highly limited nature of the bibliographies (with the exception of chapter x) at the end of each chapter and the failure to cite sources which are very pertinent to the arguments set forth. For instance, only five references are offered at the close of chapter ii, which deals with the key concept in Cantor's rationale of creating an acceptant and permissive climate in the classroom. Three of the five references date back to 1937 and 1938. No reference is made to the more recent researches by H. H. Anderson, Jersild, Flanders, Perkins, Thelen, and Wick-

man. Lippitt and White's classic study is referred to in a subsequent chapter.

In chapter vi, the author's limited, formal, and legalistic interpretation of a teacher's responsibilities is seriously open to question. His interpretation of the extent of a teacher's responsibility for the well-being of the "whole child" negates the entire organismic approach of modern education. The modern teacher, in full awareness of his limitations, *does* have to perform a few of the functions of the therapist vis-à-vis the child and of the social worker vis-à-vis the parents. In neither case does the competent teacher assume any air of authority or try to "tell" anyone what to do. Rather, the teacher discusses the problem as objectively as possible and tries to act as a catalyst in the process of helping the child or parent resolve whatever dilemma faces him.

The author's misinterpretation of "consensus" as the negation of individual differences presents an interesting, though not a crucial, semantic issue.

The author fails to state in operational terms the implications of his ideas for teachers of less mature learners, although he clearly demonstrates the pertinence of his ideas for graduate instruction. The rank-and-file teacher in the pre-college and college situation will complain, probably, that the highly introspective type of discussion which Cantor describes, and masterfully exemplifies in his seminars (judging by the transcripts), is not easily used with less mature individuals. The group-therapy approach to the learning situation is implicit in all that Cantor writes and describes. His own seminars epitomize, it appears, this therapeutic orientation. Nevertheless, little or no reference is made to the teacher's therapy role. It would help the less psychologically sophisticated reader if the role<sup>2</sup> were explicitly described.

Despite this list of strictures, minor and major, from this reviewer's frame of reference, Cantor's book has real strengths and values that outweigh its shortcomings.

The author has done a valuable job of tying together the concepts of how one facilitates behavior change which are held by learning theorists and by psychotherapists and of relating the concepts to the best thinking of practicing educators. He has insisted on a clear and necessary distinction between most of what goes on in our high schools and colleges, namely, rote memorization, and what goes on in a few learning situations above Grade IV and in most of the classrooms below Grade IV, that is, integrated and functional learning. He shows an unusual awareness of the stolid, uncreative, and traditional approach to classroom problems and uses the seminar behavior of "Stella," one of his students, to emphasize the point.

He presses home the idea of the inevitable resistance that teachers and therapists encounter in their charges because of the latter's need to maintain a consistent self-concept. He doesn't stop there, however, but offers suggestions on how to meet that resistance. He warns against the trap of using learners to meet the teacher's own needs. He labors, desirably, the point that learning is an utterly personal, individual, and unique integration of experience for each learner.

He makes a very nice distinction between praise and commendation based on the teacher's private, subjective criteria and praise based on mutually derived, publicly stated, objective criteria. The former induces dependency; the latter helps the learner toward greater self-direction and self-realization. Chapter ix, on evaluating the outcomes of instruction, is unusually well done and reaffirms the growing belief (supported by the Eight-Year Study) that our current instruments for evaluating educational progress have nothing to do with our stated objectives.

The last three items which are cited as sources of strength of the book are: (1) the author's delineation of the tremendous gap between our intellectual knowledge of the bases for personality development and our

emotional acceptance of, and our practice based on, this rather substantial body of knowledge; (2) the listing of the characteristics of the professional teacher in chapter xi; and (3) the citing in chapter xii of the basic propositions undergirding modern educative methods. Would that these two chapters could be made required reading for, and the basis for seminar discussion by, all college teachers!

This book shows how far ahead of most of us Professor Cantor is in his analysis of the learning situation in the light of learning and therapy theory. I would guess that less than 10 per cent of the teachers in secondary schools, colleges, and universities understand, and to some extent implement, the principles he enunciates and that possibly 35 per cent of our teachers in the primary and elementary grades understand and implement these principles. For a person who is not a professional educator or psychologist, Cantor displays keen insight into the whole problem of instruction and learning. It may be he can see the situation clear and whole for the very reason that he is not a professional educator or psychologist. This book is far better organized, far better thought through, and far more sound than his earlier one. Therefore, anyone deterred from examining this book by memories of *Dynamics of Learning* is urged, by one who had the same misgivings, not to miss an opportunity to be stimulated, challenged, and rewarded by reading *The Teaching*  $\longleftrightarrow$  *Learning Process*.

JOHN WITHALL

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ROBERT H. KNAPP and JOSEPH J. GREENBAUM, *The Younger American Scholar: His Collegiate Origins*. Chicago: Published by the University of Chicago Press and the Wesleyan University Press for Wesleyan University, 1953. Pp. xiv + 122. \$3.00.

In recent years, students of higher education have conducted a number of exploratory studies into the conditions governing the supply of technical and professional manpower. Investment in the productive capacities of the human agent has become recognized as a topic of considerable importance for both research and policy. The present volume covers a portion of this terrain that has not hitherto been cultivated quite so intensively, namely, the origin and recruitment of scholars in the humanities, the social sciences, and the natural sciences. While the line between scholarship and vocational training cannot be unambiguously maintained in all instances, the focus of the authors' interest is clearly intended to be the former rather than the latter area. They have attempted explicitly to exclude academic achievement in medicine, law, and theology, though their natural-science sample may have swept up some engineers and other vocationalists in the scientific field.

It would have been more accurate, though perhaps less euphonious, to have reversed the main title and subtitle of the work and christened the volume "Collegiate Origins of Younger American Scholars." Despite the implication of the major title of the volume as it stands, the study under review deals primarily with the *colleges* which train younger scholars rather than with selected characteristics of the individuals themselves. For instance, one of the authors' findings which has been widely heralded in a number of articles and press releases relates to a selected list of some fifty centers of undergraduate instruction which have a markedly high per cent of their male graduates engaged in scholarly pursuits. The list is headed by Swarthmore, slightly over 6 per cent of whose men graduates in 1946 or later years have achieved scholarly status according to the authors' criteria; second and third places are occupied by Reed College and the undergraduate division of the University of Chicago, for which the fractions are, respectively, slightly over and slightly under 5 per cent.

(The authors express these and similar magnitudes in terms of an *index* tabulating number of scholars per thousand of male or female graduates. Precise figures for the trio of institutions mentioned above are, respectively, 61.2, 53.1, and 48.4. I have a minor caveat to enter against this system of measurement on the grounds that most people—that is to say, people who are like me—can more readily apprehend proportional relationships when expressed in percentage terms on a base of 100.)

The universe which the authors explored consisted of 562 institutions, subdivided into categories such as liberal arts colleges, universities (undergraduate divisions), technological institutions, women's colleges, and a large residual category. About 7,000 persons receiving Bachelor's degrees in 1946-52 are encompassed in the study. In order to assess potential promise amongst this group of budding academicians, the authors have selected criteria which, while arbitrary, are reasonably objective and could be readily applied in terms of the resources under their command. Broadly speaking, qualifications for "scholarship" included either the receipt of a Ph.D. degree or the receipt of a fellowship from a university, a private foundation, or the federal government. Of the 130 universities awarding that degree, about three-quarters of all Ph.D.'s and 80 per cent of graduate fellowships originated in 25 leading graduate institutions. Data on degrees and fellowships are restricted to that group. Although the authors express some qualms about this procedure, teaching and research assistantships—and academic scholarships worth less than \$400 in any one year—were not counted as evidence of scholarly promise on the ground that records of such awards were tucked away in departmental files and could not be disinterred without prohibitive expenditure of time and effort. The list of private fellowships was restricted to nine leading foundations; data on government scholarships were drawn from the three major fellowship-granting agencies of the federal government,

namely, the Public Health Service, the Atomic Energy Commission, and the State Department Fulbright program. As can readily be appreciated, the justification for not collecting certain types of information rests, in part, upon the judgment that the excluded classes are of slight importance or would tend to be distributed in the same fashion as the remainder of the data.

Principal findings of the study are presented in the form of indexes giving the number of graduates per thousand who display scholarly promise of one type or another. As already indicated, the authors have discovered that a few institutions turn out a relatively high per cent of younger American scholars, while the performance ratios of the remainder taper off to insignificance. This holds true for the social and physical sciences, for the humanities, and for women's institutions, as well as for the area as a whole. Knapp and Greenbaum, in reflecting upon these results, deliver themselves of the following judgment:

While there are probably certain merits in specialization, so marked a degree of specialization in the production of younger scholars as we have found seems to us to approach a monopoly and to leave undeveloped and unproductive large segments of the American system of higher education. We strongly suspect that under proper circumstances, effective recruitment of younger scholars could be accomplished from many institutions now virtually barren of productivity [pp. 93-94].

The authors might also have pointed out the reverse side of the same coin: that the low scholarly propensities of many undergraduate institutions react unfavorably on the intellectual development of the majority of the student body who would not, under any circumstances, be candidates for further academic honors. Nevertheless, I would be inclined to say that these dark hints about "monopoly" in higher education are without adequate foundation. In general, the relatively high concentration of scholarly performance in about half a hundred institu-

tions is an inevitable result of specialization and division of labor in higher education. Given the present and foreseeable future demand for scholars, together with the scarce supply of abilities required for that type of career, it is likely that only a part of the apparatus of higher education would ever be called upon to provide the environment in which high-level academic performance grows and flourishes. So far as he knows his own strengths and is free to choose, the potential scholar selects the undergraduate institution which specializes in the training that he needs and wants. Any institution can buy into this fraternity if it wants to pay the price in terms of academic standards, faculty personnel, and curriculum emphasis. Other than that, the authors' findings on the differential incidence of scholarly productivity serve to quantify and reinforce the ancient truth that barren soils produce poor crops.

PROCTER THOMSON

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NELLIE ZETTA THOMPSON, *Your School Clubs: A Complete Guide to 500 Activities for Group Leaders and Members*. New York 10: E. P. Dutton & Co., 1953. Pp. 318. \$3.50.

The work reviewed here is a why-to-do-it and how-to-do-it handbook on extra-curriculum activities, geared to the high-school level. The book should be useful to the adviser, administrator, and student.

According to the statistics quoted by the author, in 1950 it was estimated that the activities program in the United States encompassed 3,890,240 pupils and 194,512 group activities, supervised by 200,000 advisers in 25,000 secondary schools (p. 14). We are told, in fact, that the extra-curriculum program is the mark of the modern school and that a broader philosophy of education includes provisions for the personality development of the student along with provi-

sions for his academic achievement. A good democratic club program, it is claimed, aids in lessening the drop-out rate of students from school and is a functional way to attain school objectives.

The author, however, is interested not only in informing us about the need for the club in the school complex; she goes on to outline concretely the procedures for ascertaining potential interest in, enlisting student support of, and carrying through, an activities program. Specifically, we are told what the qualifications of a club adviser and director of activities are; how both to limit and to encourage club participation; and how to finance a club, set up a charter, schedule meetings, and write a constitution. The author, furthermore, discusses the respective places of the school newspaper as a publicity organ in the activities program, of the student council as an administrative and regulating agency, and of the school-club calendar as a medium of co-ordination as well as of routine announcement. Many of these points are illustrated with abundant samples from existing school-club systems, for example, with the calendar and the constitution of established clubs.

The book is organized into two sections. The first part is concerned with the adminis-

trative aspects of a student-club program, while the second part deals with types of constructive activities that can be carried out in separate clubs. Over three-fourths of the book is occupied by the second part. Twenty-seven activities are listed under general headings, such as art, music, and citizenship. Each of these twenty-seven activities is broken down into six headings: general discussion, desirable outcome, popular names for clubs, suggested activities, further reading, and additional sources of information.

The author has made a constructive effort to communicate the importance and need of the club program in the modern high school, and she has outlined a competent plan of procedure. We have here an excellent, if somewhat mundane, base from which to start. Although considerable credit should be given to Thompson for her lists of specific activities, bibliographical materials, and additional sources of information, the actual tenor of the discussion could be more inspiring. Nevertheless, the usefulness of this work as a sourcebook is substantial, and users of the volume will be grateful for the variety of information offered under one cover.

MARGOT F. HAMP

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- BIDDLE, WILLIAM W. *The Cultivation of Community Leaders: Up from the Grass Roots*. New York 16: Harper & Bros., 1953. Pp. xiv+204. \$3.00.
- FOREST, ILSE. *Child Development*. New York 36: McGraw-Hill Book Co., Inc., 1954. Pp. viii+292. \$4.00.
- GREENE, HARRY A.; JORGENSEN, ALBERT N.; and GERBERICH, J. RAYMOND. *Measurement and Evaluation in the Secondary School*. New York 3: Longmans, Green & Co., 1954. Pp. xxii+690. \$5.00.
- GRISWOLD, ALFRED WHITNEY. *Essays on Education*. New Haven 7, Connecticut: Yale University Press, 1954. Pp. xiv+164. \$2.75.



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MACCONNELL, CHARLES M.; MELBY, ERNEST O.; ARNDT, CHRISTIAN O.; and BISHOP, LESLEE J. *New Schools for a New Culture: The Story of the Evanston Township High School Core Program*. New York 16: Harper & Bros., 1953 (revised). Pp. xii+196. \$3.00.

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COLVIN, MINNA, and COLVIN, WOOLF. *Geography in Our Modern World: Economic Geography, Physical, Political*. New York 13: Cambridge Book Co., 1953. Pp. xii+434. \$0.86.

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GREEN, ROGER LANCELYN. *Tellers of Tales: An Account of Children's Favourite Authors from 1839 to the Present Day, Their Books and How They Came To Write Them, together with an Appendix and Indexes Giving the Titles and Dates of These Books*. New York 22: British Book Centre Inc., 1953 (revised). Pp. 288. \$2.50.

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LEONHARDY, ADELE, and ELY, VIVIAN B. *Mathematics for Everyday Living*. New York 3: D. Van Nostrand Co., Inc., 1954. Pp. x+470. \$2.96.

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- Studies in Education, 1953*. Thesis Abstract Series, No. 5. Bloomington, Indiana: School of Education, Indiana University, 1954. Pp. 258. \$1.00.
- Studies in Higher Education, LXXXI: American High School Students Evaluate Their Public School System* by R. BRUCE KIRK and *The Consumers Look at Practice and Procedures in Education* by BARRON B. SCARBOROUGH. Further Studies in Attitudes, Series XIX. Lafayette, Indiana: Division of Educational Reference, Purdue University, 1953. Pp. 86. \$1.25.
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 Bulletin 1953, No. 7—*A Directory of 2660 16mm Film Libraries* by SEERLY REID and ANITA CARPENTER. Pp. viii+172. \$0.25.  
 "Report of the Status Phase of the School Facilities Survey: Authorized by Title I, P.L. 815, 81st Congress" prepared by WILLIAM O. WILSON and JAMES WOOPTEY. Pp. viii+140 (processed). \$0.70.

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